



RRRRRRRR		TTTTTTTTTT		PPPPPPPP		AAAAAA		DDDDDDDD	
RRRRRRRR		TTTTTTTTTT		PPPPPPPP		AAAAAA		DDDDDDDD	
RR	RR	TT		PP	PP	AA	AA	DD	DD
RR	RR	TT		PP	PP	AA	AA	DD	DD
RR	RR	TT		PP	PP	AA	AA	DD	DD
RR	RR	TT		PP	PP	AA	AA	DD	DD
RRRRRRRR		TT		PPPPPPPP		AA	AA	DD	DD
RRRRRRRR		TT		PPPPPPPP		AA	AA	DD	DD
RR	RR	TT		PP		AAAAAAAAAA		DD	DD
RR	RR	TT		PP		AAAAAAAAAA		DD	DD
RR	RR	TT		PP		AA	AA	DD	DD
RR	RR	TT		PP		AA	AA	DD	DD
RR	RR	TT		PP		AA	AA	DD	DD
RR	RR	TT		PP		AA	AA	DDDDDDDD	....
RR	RR	TT		PP		AA	AA	DDDDDDDD	....

```

LL               IIIIII!      SSSSSSSS
LL              IIIIIII       SSSSSSSS
LL              III           SS
LL              III          SS
LL              III          SS
LL              III          SS
LL              III         SSSSSS
LL              III        SSSSSS
LL              III         SS
LL              III         SS
LL              III         SS
LL              III         SS
LLLLLLLLLLLLLLL   IIIIIII    SSSSSSSS
LLLLLLLLLLLLLLL   IIIIIII    SSSSSSSS

```

(1)	113	DECLARATIONS
(1)	146	RTPAD - MAIN ROUTINE
(1)	247	INIT - INITIALIZATION OF LINK, ETC.
(2)	611	RECORD QUIT - snapshot QUIT info
(3)	629	READ ONLY DATA
(3)	662	READ WRITE DATA
(3)	856	PROTOCOL TABLE PSECTS



```
0000 1 .TITLE RTPAD - REMOTE TERMINAL PROGRAM
0000 2 .IDENT 'V04-000'
00000000 3 .PSECT RTPAD,NOWRT
0000 4
0000 5 $DEBUGDEF
0000 6
0000 7
0000 8 *****
0000 9 *
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0000 27 *
0000 28 *
0000 29 *****
0000 30
0000 31 ++
0000 32 FACILITY: REMOTE TERMINAL SUPPORT
0000 33
0000 34 ABSTRACT:
0000 35
0000 36 THIS PROGRAM RUNS ON A LOCAL NODE TO ALLOW A TERMINAL TO APPEAR TO
0000 37 BE LOCALLY CONNECTED TO A REMOTE NODE.
0000 38
0000 39
0000 40 ENVIRONMENT: VMS - USER MODE
0000 41
0000 42
0000 43 AUTHOR: W M CARDOZA, CREATION DATE: 20-AUG-79
0000 44
0000 45 MODIFIED BY:
0000 46
0000 47 V03-017 JLV0362 Jake VanNoy 11-JUL-1984
0000 48 Add code to signal PC that QUOTA EXCEEDED occurred at.
0000 49
0000 50 V03-016 JLV0353 Jake VanNoy 10-APR-1984
0000 51 Add support for SET HOST/DTE ttcn:
0000 52
0000 53 V03-015 JLV0324 Jake VanNoy 10-JAN-1984
0000 54 Fix bug in setting of vax to vax flag.
0000 55
0000 56 V03-014 JLV0315 Jake VanNoy 7-DEC-1983
0000 57 Add logical name RTPAD$LOG for debug purposes.
```

```
0000 58 : Used like FAL$LOG, etc.
0000 59 :
0000 60 : V03-013 JLV0295 Jake VanNoy 28-JUL-1983
0000 61 : Add looping on non-zero WRITEQIO before exiting.
0000 62 : Add SET HOST/LOG[=filespec].
0000 63 :
0000 64 : V03-012 MHB0093 Mark Bramhall 7-Mar-1983
0000 65 : Moved MAXMSG to $RTPADDEF.
0000 66 : Reworked code to use dynamic descriptors.
0000 67 : Changed the CTERM detection algorithm.
0000 68 : Changed handling of PSTHRU messages.
0000 69 :
0000 70 : V03-011 MHB0089 Mark Bramhall 11-Feb-1983
0000 71 : Changed LIB$NET_CONNECT to UNS$NET_CONNECT.
0000 72 :
0000 73 : V03-010 JLV0 Jake VanNoy 17-Jan-1983
0000 74 : Added hooks for CTERM protocol. Broke up into two modules -
0000 75 : RTPAD and VMSRT. VMSRT now holds all of the VMS specific
0000 76 : protocol. General cleanup of existing code and comments.
0000 77 : Add use of new CLI interface, results in loss of first
0000 78 : command feature used by RSTSRT.
0000 79 :
0000 80 : V03-009 WMC0068 Wayne Cardoza 5-Oct-1982
0000 81 : Fix the previous DCL fix.
0000 82 :
0000 83 : V03-008 WMC0067 Wayne Cardoza 15-Oct-1982
0000 84 : Fix timing problem when link error arrives before the
0000 85 : mailbox message.
0000 86 : Work with new DCL keyword support.
0000 87 :
0000 88 : V03-007 JLV0214 Jake VanNoy 6-OCT-1982
0000 89 : Add Read Verify code as implemented (more or less)
0000 90 : by Steve Long.
0000 91 :
0000 92 : V03-006 WMC0066 Wayne Cardoza 20-Aug-1982
0000 93 : Take care of errors on SENSE MODE.
0000 94 :
0000 95 : V03-005 WMC0065 Wayne Cardoza 7-Jul-1982
0000 96 : Don't issue out of band set mode QIO if no change.
0000 97 :
0000 98 : V03-004 WMC0064 Wayne Cardoza 9-Apr-1982
0000 99 : Don't try to disable ^T under MCR.
0000 100 :
0000 101 : V03-003 WMC0063 Wayne Cardoza 1-Apr-1982
0000 102 : Zero the buffer before a SENSE.
0000 103 :
0000 104 : V03-002 WMC0062 Wayne Cardoza 18-Mar-1982
0000 105 : Add TERMCHAR in DIB format back for RSX, etc.
0000 106 :
0000 107 : V03-001 WMC0061 Wayne Cardoza 15-Mar-1982
0000 108 : Send extended characteristics in configuration message.
0000 109 :
0000 110 : **
0000 111 : --
```



```
0000 113 .SBTTL DECLARATIONS
0000 114 :
0000 115 : DEFAULT ADDRESSING MODE
0000 116 :
0000 117 : .DEFAULT DISPLACEMENT WORD
0000 118 :
0000 119 : INCLUDE FILES:
0000 120 :
0000 121 $DIBDEF ;DIB OFFSETS
0000 122 $DSCDEF ;DESCRIPTOR DEFINITIONS
0000 123 $SDVIDEF ;GETDVI DEFINITIONS
0000 124 $IODEF ;I/O OP CODES & MODIFIERS
0000 125 $RDPDEF ;REMOTE DEVICE PROTOCOL
0000 126 $RTPADDEF ; *** NEW
0000 127 $TSADEF ; *** NEW *** tsadef
0000 128 $TTYDEFS ;TERMINAL DRIVER SYMBOLS
0000 129 :
0000 130 : EQUATED SYMBOLS:
0000 131 :
0000 132 : AST CONTROL BLOCK
0000 133 :
00000026 0000 134 AST$_BUF = CTP$_PRO_MSGTYPE ; DATA BUFFER STARTS HERE
0000 135
000001FE 0000 136 REM$_FACILITY = 510 ; REM$_code
0000 137
0000 138 .show me,MC,MD
0000 139 $SHR_MSGDEF NAME=REM, CODE=REM$_FACILITY, SCOPE=LOCAL, -
0000 140 MSGCODES = <<ATPC,INFO>>
00000001 0000 .IF NDF,SHR$_K_SHRDEF
0000 SHR$_K_SHRDEF = 1
0000 $SHRDEF
0000 $DEFINI SHR,
0000 .SAVE LOCAL_BLOCK
0000 .NOCROSS
0000 .IIF DIF <> <GLOBAL>,.ENABLE SUPPRESSION
0000 .PSECT $ABS$,ABS
0000 $GBLINI
0000 .IF IDN <LOCAL> <GLOBAL>
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM::
0000 .IIF NB,ALLOC, ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
0000 SYM==VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ, SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V 'SYM==BIT::
0000 .IIF NB,SIZ, MOD'SEP'S 'SYM==SIZ
0000 .IIF NB,MSK, MOD'SEP'M 'SYM==<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .IIF
0000 .IIF DIF <LOCAL> <LOCAL>,.ERROR ;ARG MUST BE "GLOBAL","LOCAL",OR NULL
```

```
0000 .MACRO SDEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM:
0000 .IIF NB,ALLOC,ALLOC SIZ
0000 .ENDM SDEF
0000 .MACRO SEQU SYM,VAL
0000 SYM=VAL
0000 .ENDM SEQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ,SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V'SYM=BIT...
0000 .IIF NB,SIZ,MOD'SEP'S'SYM=SIZ
0000 .IIF NB,MSK,MOD'SEP'M'SYM=<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .ENDC
00000000 0000 .=0
00000000 0000 SEQU SHRS_FACILITY 0
00000000 0000 SHRS_FACILITY=0
00001000 0000 SEQU SHRS_APPENDED 4096
00001000 0000 SHRS_APPENDED=4096
00001008 0000 SEQU SHRS_APPENDED 4104
00001008 0000 SHRS_APPENDED=4104
00001010 0000 SEQU SHRS_BADBYTE 4112
00001010 0000 SHRS_BADBYTE=4112
00001018 0000 SEQU SHRS_BADFIELD 4120
00001018 0000 SHRS_BADFIELD=4120
00001020 0000 SEQU SHRS_BADLONG 4128
00001020 0000 SHRS_BADLONG=4128
00001028 0000 SEQU SHRS_BADWORD 4136
00001028 0000 SHRS_BADWORD=4136
00001030 0000 SEQU SHRS_BEGIN 4144
00001030 0000 SHRS_BEGIN=4144
00001038 0000 SEQU SHRS_BEGIN 4152
00001038 0000 SHRS_BEGIN=4152
00001040 0000 SEQU SHRS_BEGIN 4160
00001040 0000 SHRS_BEGIN=4160
00001048 0000 SEQU SHRS_CLICB 4168
00001048 0000 SHRS_CLICB=4168
00001050 0000 SEQU SHRS_CLOSEIN 4176
00001050 0000 SHRS_CLOSEIN=4176
```

00001058	0000	SEQU	SHR\$_CLOSEOUT 4184
	0000		SHR\$_CLOSEOUT=4184
	0000		
00001060	0000	SEQU	SHR\$_COPIEDB 4192
	0000		SHR\$_COPIEDB=4192
	0000		
00001068	0000	SEQU	SHR\$_COPIEDR 4200
	0000		SHR\$_COPIEDR=4200
	0000		
00001070	0000	SEQU	SHR\$_CREATED 4208
	0000		SHR\$_CREATED=4208
	0000		
00001078	0000	SEQU	SHR\$_ENDED 4216
	0000		SHR\$_ENDED=4216
	0000		
00001080	0000	SEQU	SHR\$_ENEDD 4224
	0000		SHR\$_ENEDD=4224
	0000		
00001088	0000	SEQU	SHR\$_ENEDT 4232
	0000		SHR\$_ENEDT=4232
	0000		
00001090	0000	SEQU	SHR\$_NEWFILES 4240
	0000		SHR\$_NEWFILES=4240
	0000		
00001098	0000	SEQU	SHR\$_OPENIN 4248
	0000		SHR\$_OPENIN=4248
	0000		
000010A0	0000	SEQU	SHR\$_OPENOUT 4256
	0000		SHR\$_OPENOUT=4256
	0000		
000010A8	0000	SEQU	SHR\$_OVERLAY 4264
	0000		SHR\$_OVERLAY=4264
	0000		
000010B0	0000	SEQU	SHR\$_READERR 4272
	0000		SHR\$_READERR=4272
	0000		
000010B8	0000	SEQU	SHR\$_REPLACED 4280
	0000		SHR\$_REPLACED=4280
	0000		
000010C0	0000	SEQU	SHR\$_WILDCONCAT 4288
	0000		SHR\$_WILDCONCAT=4288
	0000		
000010C8	0000	SEQU	SHR\$_WILDOUTVER 4296
	0000		SHR\$_WILDOUTVER=4296
	0000		
000010D0	0000	SEQU	SHR\$_WRITEERR 4304
	0000		SHR\$_WRITEERR=4304
	0000		
000010D8	0000	SEQU	SHR\$_ABEND 4312
	0000		SHR\$_ABEND=4312
	0000		
000010E0	0000	SEQU	SHR\$_ABENDD 4320
	0000		SHR\$_ABENDD=4320
	0000		
000010E8	0000	SEQU	SHR\$_ABENDT 4328
	0000		SHR\$_ABENDT=4328
	0000		



000010F0	0000	SEQU	SHR\$_SYSERRORPC 4336
	0000		SHR\$_SYSERRORPC=4336
	0000		
000010F8	0000	SEQU	SHR\$_SYNTAX 4344
	0000		SHR\$_SYNTAX=4344
	0000		
00001100	0000	SEQU	SHR\$_NOVALUE 4352
	0000		SHR\$_NOVALUE=4352
	0000		
00001108	0000	SEQU	SHR\$_BADKEY 4360
	0000		SHR\$_BADKEY=4360
	0000		
00001110	0000	SEQU	SHR\$_BADVALUE 4368
	0000		SHR\$_BADVALUE=4368
	0000		
00001118	0000	SEQU	SHR\$_BADDELIM 4376
	0000		SHR\$_BADDELIM=4376
	0000		
00001120	0000	SEQU	SHR\$_BADLOGIC 4384
	0000		SHR\$_BADLOGIC=4384
	0000		
00001128	0000	SEQU	SHR\$_NOWILD 4392
	0000		SHR\$_NOWILD=4392
	0000		
00001130	0000	SEQU	SHR\$_TEXT 4400
	0000		SHR\$_TEXT=4400
	0000		
00001138	0000	SEQU	SHR\$_IDXCONCAT 4408
	0000		SHR\$_IDXCONCAT=4408
	0000		
00001140	0000	SEQU	SHR\$_RELCONCAT 4416
	0000		SHR\$_RELCONCAT=4416
	0000		
00001148	0000	SEQU	SHR\$_HIGHVER 4424
	0000		SHR\$_HIGHVER=4424
	0000		
00001150	0000	SEQU	SHR\$_BADLOGICPC 4432
	0000		SHR\$_BADLOGICPC=4432
	0000		
00001158	0000	SEQU	SHR\$_ATPC 4440
	0000		SHR\$_ATPC=4440
	0000		
00001160	0000	SEQU	SHR\$_BADCOPIES 4448
	0000		SHR\$_BADCOPIES=4448
	0000		
00001168	0000	SEQU	SHR\$_BADFORM 4456
	0000		SHR\$_BADFORM=4456
	0000		
00001170	0000	SEQU	SHR\$_BADJOBID 4464
	0000		SHR\$_BADJOBID=4464
	0000		
00001178	0000	SEQU	SHR\$_BADJOBNAME 4472
	0000		SHR\$_BADJOBNAME=4472
	0000		
00001180	0000	SEQU	SHR\$_BADPRTY 4480
	0000		SHR\$_BADPRTY=4480
	0000		

00001188	0000	SEQU	SHR\$_BADQNAME 4488
	0000		SHR\$_BADQNAME=4488
	0000		
00001190	0000	SEQU	SHR\$_BADTIME 4496
	0000		SHR\$_BADTIME=4496
	0000		
00001198	0000	SEQU	SHR\$_NOQUEUE 4504
	0000		SHR\$_NOQUEUE=4504
	0000		
000011A0	0000	SEQU	SHR\$_NOJOBID 4512
	0000		SHR\$_NOJOBID=4512
	0000		
000011A8	0000	SEQU	SHR\$_NOJOBNAME 4520
	0000		SHR\$_NOJOBNAME=4520
	0000		
000011B0	0000	SEQU	SHR\$_SYSERROR 4528
	0000		SHR\$_SYSERROR=4528
	0000		
000011B8	0000	SEQU	SHR\$_NOTCOPIED 4536
	0000		SHR\$_NOTCOPIED=4536
	0000		
000011C0	0000	SEQU	SHR\$_NOTCMPLT 4544
	0000		SHR\$_NOTCMPLT=4544
	0000		
000011C8	0000	SEQU	SHR\$_RMSERROR 4552
	0000		SHR\$_RMSERROR=4552
	0000		
000011D0	0000	SEQU	SHR\$_UNXPCTSTS 4560
	0000		SHR\$_UNXPCTSTS=4560
	0000		
000011D8	0000	SEQU	SHR\$_HASHCONCAT 4568
	0000		SHR\$_HASHCONCAT=4568
	0000		
000011E0	0000	SEQU	SHR\$_INCOMPAT 4576
	0000		SHR\$_INCOMPAT=4576
	0000		
000011E8	0000	SEQU	SHR\$_VALERR 4584
	0000		SHR\$_VALERR=4584
	0000		
000011F0	0000	SEQU	SHR\$_FILNOTDEL 4592
	0000		SHR\$_FILNOTDEL=4592
	0000		
000011F8	0000	SEQU	SHR\$_CONFDEL 4600
	0000		SHR\$_CONFDEL=4600
	0000		
00001200	0000	SEQU	SHR\$_DELETED 4608
	0000		SHR\$_DELETED=4608
	0000		
00001208	0000	SEQU	SHR\$_DELVER 4616
	0000		SHR\$_DELVER=4616
	0000		
00001210	0000	SEQU	SHR\$_PURGEVER 4624
	0000		SHR\$_PURGEVER=4624
	0000		
00001218	0000	SEQU	SHR\$_CLOSEDEL 4632
	0000		SHR\$_CLOSEDEL=4632
	0000		

00001220	0000	SEQU	SHR\$_DIRTOOBUS 4640
	0000		SHR\$_DIRTOOBUS=4640
	0000		
00001228	0000	SEQU	SHR\$_NOFILPURG 4648
	0000		SHR\$_NOFILPURG=4648
	0000		
00001230	0000	SEQU	SHR\$_FILNOTPUR 4656
	0000		SHR\$_FILNOTPUR=4656
	0000		
00001238	0000	SEQU	SHR\$_SEARCHFAIL 4664
	0000		SHR\$_SEARCHFAIL=4664
	0000		
00001240	0000	SEQU	SHR\$_DELINTERR 4672
	0000		SHR\$_DELINTERR=4672
	0000		
00001248	0000	SEQU	SHR\$_PARSEFAIL 4680
	0000		SHR\$_PARSEFAIL=4680
	0000		
00001250	0000	SEQU	SHR\$_FILPURGED 4688
	0000		SHR\$_FILPURGED=4688
	0000		
00001258	0000	SEQU	SHR\$_ENDABORT 4696
	0000		SHR\$_ENDABORT=4696
	0000		
00001260	0000	SEQU	SHR\$_ENDDIAGS 4704
	0000		SHR\$_ENDDIAGS=4704
	0000		
00001268	0000	SEQU	SHR\$_ENDNOOBJ 4712
	0000		SHR\$_ENDNOOBJ=4712
	0000		
00001270	0000	SEQU	SHR\$_HALTED 4720
	0000		SHR\$_HALTED=4720
	0000		
00001278	0000	SEQU	SHR\$_NOCMDMEM 4728
	0000		SHR\$_NOCMDMEM=4728
	0000		
00001280	0000	SEQU	SHR\$_QEMPTY 4736
	0000		SHR\$_QEMPTY=4736
	0000		
00001288	0000	SEQU	SHR\$_CBT 4744
	0000		SHR\$_CBT=4744
	0000		
00001290	0000	SEQU	SHR\$_EXISTS 4752
	0000		SHR\$_EXISTS=4752
	0000		
00001298	0000	SEQU	SHR\$_UNLOCKED 4760
	0000		SHR\$_UNLOCKED=4760
	0000		
000012A0	0000	SEQU	SHR\$_RENAMED 4768
	0000		SHR\$_RENAMED=4768
	0000		
000012A8	0000	SEQU	SHR\$_PROTECTED 4776
	0000		SHR\$_PROTECTED=4776
	0000		
000012B0	0000	SEQU	SHR\$_NOTLOCKED 4784
	0000		SHR\$_NOTLOCKED=4784
	0000		



000012B8	0000	SEQU	SHR\$_ACTIMAGE 4792
	0000		SHR\$_ACTIMAGE=4792
	0000		
000012C0	0000	SEQU	SHR\$_DIRNOTCRE 4800
	0000		SHR\$_DIRNOTCRE=4800
	0000		
000012C8	0000	SEQU	SHR\$_NODESTQUE 4808
	0000		SHR\$_NODESTQUE=4808
	0000		
000012D0	0000	SEQU	SHR\$_ILLDESQUE 4816
	0000		SHR\$_ILLDESQUE=4816
	0000		
000012D8	0000	SEQU	SHR\$_NOTTERM 4824
	0000		SHR\$_NOTTERM=4824
	0000		
000012E0	0000	SEQU	SHR\$_CONFQUAL 4832
	0000		SHR\$_CONFQUAL=4832
	0000		
000012E8	0000	SEQU	SHR\$_ILLDIRCOPY 4840
	0000		SHR\$_ILLDIRCOPY=4840
	0000		
000012F0	0000	SEQU	SHR\$_INSVIRMEM 4848
	0000		SHR\$_INSVIRMEM=4848
	0000		
000012F8	0000	SEQU	SHR\$_CREATEDSTM 4856
	0000		SHR\$_CREATEDSTM=4856
	0000		
00001300	0000	SEQU	SHR\$_NOTRUNC 4864
	0000		SHR\$_NOTRUNC=4864
	0000		
00001308	0000	SEQU	SHR\$_PRODNOTINS 4872
	0000		SHR\$_PRODNOTINS=4872
	0000		
00001310	0000	SEQU	SHR\$_TOTAL 4880
	0000		SHR\$_TOTAL=4880
	0000		
00001318	0000	SEQU	SHR\$_FILPURG 4888
	0000		SHR\$_FILPURG=4888
	0000		
00001320	0000	SEQU	SHR\$_FILDEL 4896
	0000		SHR\$_FILDEL=4896
	0000		
00001328	0000	SEQU	SHR\$_INVQUAVAL 4904
	0000		SHR\$_INVQUAVAL=4904
	0000		
00001330	0000	SEQU	SHR\$_NOFILES 4912
	0000		SHR\$_NOFILES=4912
	0000		
00001338	0000	SEQU	SHR\$_FILNOTACC 4920
	0000		SHR\$_FILNOTACC=4920
	0000		
00001340	0000	SEQU	SHR\$_QUALMISS 4928
	0000		SHR\$_QUALMISS=4928
	0000		
00001348	0000	SEQU	SHR\$_FILSPCSRCH 4936
	0000		SHR\$_FILSPCSRCH=4936
	0000		

```
00001350 0000 $EQU SHRS_NOSRCHLST 4944
          0000 SHRS_NOSRCHLST=4944
          0000
00001358 0000 $EQU SHRS_NOSUCHID 4952
          0000 SHRS_NOSUCHID=4952
          0000
          0000 $DEFEND SHR,DEF
          0000 .MACRO $SHRDEF A
          0000 .ENDM $SHRDEF
          0000 .IIF DIF <> <GLOBAL>,.DISABLE SUPPRESSION
          0000 .CROSS
00000000 0000 .RESTORE
          0000
          0000
00000000 0000 .ENDC
          0000 $$GBL = 0
          0000 .IIF IDN,LOCAL,GLOBAL,$$GBL = 1
          0000 .IRP MSGPAIR,<<ATPC,INFO>>
          0000 $SHR,MSGCOD REM, REMS_FACILITY, MSGPAIR
          0000 .ENDR
          0000 $SHR MSGCOD REM, REMS_FACILITY, ATPC,INFO
          0000 .IF IDN,INFO,WARNING
          0000 .IF EQ $$GBL
          0000 REMS_ATPC = 0
          0000 .IFF
          0000 REMS_ATPC == 0
          0000 .ENDC
          0000 .IFF
          0000 .IF IDN,INFO,SUCCESS
          0000 .IF EQ $$GBL
          0000 REMS_ATPC = 1
          0000 .IFF
          0000 REMS_ATPC == 1
          0000 .ENDC
          0000 .IFF
          0000 .IF IDN,INFO,ERROR
          0000 .IF EQ $$GBL
          0000 REMS_ATPC = 2
          0000 .IFF
          0000 REMS_ATPC == 2
          0000 .ENDC
          0000 .IFF
          0000 .IF IDN,INFO,INFO
          0000 .IF EQ $$GBL
          0000 REMS_ATPC = 3
          0000 .IFF
          0000 REMS_ATPC == 3
          0000 .ENDC
          0000 .IFF
          0000 .IF IDN,INFO,SEVERE
          0000 .IF EQ $$GBL
          0000 REMS_ATPC = 4
          0000 .IFF
          0000 REMS_ATPC == 4
          0000 .ENDC
          0000 .IFF
          0000 .IF EQ $$GBL
00000000 0000
00000003 0000
```

```
0000 REMS_ATPC = INFO
0000 .IFF
0000 REMS_ATPC == INFO
0000 .ENDC
0000 .ENDC
0000 .ENDC
0000 .ENDC
0000 .ENDC
0000 .ENDC
00000000 .IF EQ $$GBL
01FE115B REMS_ATPC = REMS_ATPC+SHRS_ATPC+<REMS_FACILITY@16>
0000 .IFF
0000 REMS_ATPC == REMS_ATPC+SHRS_ATPC+<REMS_FACILITY@16>
0000 .ENDC
0000
0000
0000
0000
0000
0000
0000
0000
0000 141 .nashow meb
0000 142 :
0000 143 :
0000 144 :
```



```
0000 146 .SBTTL RTPAD - MAIN ROUTINE
0000 147 :++
0000 148 : FUNCTIONAL DESCRIPTION:
0000 149 :
0000 150 :     MAIN ROUTINE
0000 151 :
0000 152 : CALLING SEQUENCE:
0000 153 :
0000 154 :     RUN FROM A TERMINAL
0000 155 :
0000 156 : INPUT PARAMETERS:
0000 157 :
0000 158 :     NONE
0000 159 :
0000 160 : IMPLICIT INPUTS:
0000 161 :
0000 162 :     NONE
0000 163 :
0000 164 : OUTPUT PARAMETERS:
0000 165 :
0000 166 :     NONE
0000 167 :
0000 168 : IMPLICIT OUTPUTS:
0000 169 :
0000 170 :     NONE
0000 171 :
0000 172 : COMPLETION CODES:
0000 173 :
0000 174 :     RETURNED IF A SYSTEM SERVICE HAS AN UNEXPECTED ERROR
0000 175 :
0000 176 : SIDE EFFECTS:
0000 177 :
0000 178 :     DECNET LINK SET UP WITH A REMOTE NODE
0000 179 :
0000 180 :--
0000 181 RTPAD:
0000 182 .WORD 0
0002 183
0002 184 .if df debug
0002 185 BSBW DEBUG_SETUP ; enable ^B
0002 186 .endc
0002 187
0002 188 ;
0002 189 ; INIT creates logical link and starts up protocol module,
0002 190 ; everything after that is AST driven.
0002 191 ;
0002 192
0000 30 0002 193 BSBW INIT ; INIT & set up logical link
0005 194
0005 195 10$: $HIBER_S ; Proceed asynchronous from now on
0005
0005 .GLOBL SYSS$HIBER
0005 CALLS #0,G^SYSS$HIBER
000C
0000 196 TSTB WAKEFLAG ; Time to exit if > 0
0010 197 BEQL 10$ ; Spurious $WAKE
0012 198
0012 199 BLBC CTERM_FLAG,20$ ; branch if not cterm
```

```
0000'CF D5 0017 200 TSTL WRITEQIO ; must also be zero before exiting
OB 13 0018 201 BEQL 20$ ; yup, exit
001D 202 $SETAST_S ENBFLG = #1 ; Allow ast delivery (turned off by QUIT)
001D .GLOBL SYSS$SETAST
001D PUSHL #1
00000000'GF 01 DD 001D .GLOBL SYSS$SETAST
01 FB 001F #1,G^SYSS$SETAST
0026
DD 11 0026 203 BRB 10$ ; loop
0028 204 20$:
0028 205 ; Wakeflag is set, exit back to DCL
0028 206
0028 207
0028 208
0028 209 $SETAST_S ENBFLG = #0 ; Shut down ast delivery
0028 .GLOBL SYSS$SETAST
00000000'GF 00 DD 0028 PUSHL #0
01 FB 002A CALLS #1,G^SYSS$SETAST
0031
0031 210
0031 211 $CANCEL_S CHAN = READCHAN
0031 .GLOBL SYSS$CANCEL
0031 MOVZWL READCHAN, -(SP)
00000000'GF 7E 014C'CF 3C 0031 CALLS #1,G^SYSS$CANCEL
01 FB 0036
003D
003D 212 $CANCEL_S CHAN = TERMMBXCHAN
003D .GLOBL SYSS$CANCEL
003D MOVZWL TERMMBXCHAN, -(SP)
00000000'GF 7E 0158'CF 3C 003D CALLS #1,G^SYSS$CANCEL
01 FB 0042
0049
0049 213 $CANCEL_S CHAN = MAILCHAN
0049 .GLOBL SYSS$CANCEL
0049 MOVZWL MAILCHAN, -(SP)
00000000'GF 7E 0148'CF 3C 0049 CALLS #1,G^SYSS$CANCEL
01 FB 004E
0055
0055 214 $CANCEL_S CHAN = LINKCHAN
0055 .GLOBL SYSS$CANCEL
0055 MOVZWL LINKCHAN, -(SP)
00000000'GF 7E 0144'CF 3C 0055 CALLS #1,G^SYSS$CANCEL
01 FB 005A
0061
0061 215
0061 216 $PUTMSG_S MSGVEC = EXITMSG ; Tell user why
00 DD 0061 .GLOBL SYSS$PUTMSG
0063 PUSHL #0
0063 $PUSHADR 0,CONTEXT=0
00 DD 0063 .IF IDN,0,0
0065 PUSHL #0
0065 .IFF
0065 PUSHAQ 0
0065 .ENDC
0065
0065 $PUSHADR 0
00 DD 0065 .IF IDN,0,0
0065 PUSHL #0
0067 .IFF
0067 PUSHAL 0
0067 .ENDC
0067
```

```
0067
0067
0067
0128'CF DF 0067
0068
0068
00000000'GF 04 FB 0068
0072
0072 217
0072 218
0072 219
0072
00000000 0072
0072
00000001 0072
0072
00000001 0072
7E 7C 0072
0074
0074
0074
0074
0074
00000000 0074
0074
0074
00000001 0074
0074
0074
00000001 0074
7E 7C 0074
0076
0076
0076
0076
0076
00 DD 0076
0078
00 DD 0078
007A
007A
007A
007A
00000000 007A
007A
007A
00000001 007A
007A
00000001 007A
007A
```

```
$PUSHADR EXITMSG
  .IF IDN,0,EXITMSG
PUSHL #0
  .IFF
PUSHAL EXITMSG
  .ENDC

CALLS #4,G^SYSS$PUTMSG

$QIG_S CHAN = CNTRLCHAN - ; Get rid of the ^Y AST request
FUNC = #IOS SETMODE!IOSM_CTRLFAST
  .GLOBL SYSSQIO
$PUSHTWO #0,#0
$ST1 = 0
  .IF IDN,<#0>,<#0>
  .IF IDN,<#0>,<#0>
$ST1 = 1
  .ENDC
  .ENDC
  .IF NE $ST1
CLRQ -(SP)
  .IFF
PUSHL #0
PUSHL #0
  .ENDC

$PUSHTWO #0,#0
$ST1 = 0
  .IF IDN,<#0>,<#0>
  .IF IDN,<#0>,<#0>
$ST1 = 1
  .ENDC
  .ENDC
  .IF NE $ST1
CLRQ -(SP)
  .IFF
PUSHL #0
PUSHL #0
  .ENDC

PUSHL #0
$PUSHADR 0
  .IF IDN,0,0
PUSHL #0
  .IFF
PUSHAL 0
  .ENDC

$QIOPUSH #0,0
$ST1 = 0
  .IF IDN,<#0>,<#0>
  .IF IDN,<0>,<0>
$ST1 = 1
  .ENDC
  .ENDC
  .IF NE $ST1
```



7E	7C	007A	CLRQ	-(SP)	
		007C	.IFF		
		007C	PUSHL	#0	
		007C	\$PUSHADR	0	
		007C	.ENDC		
		007C	\$PUSHADR	0,CONTEXT=Q	
		007C	.IF	IDN,0,0	
00	DD	007C	PUSHL	#0	
		007E	.IFF		
		007E	PUSHAQ	0	
		007E	.ENDC		
7E	00A3	8F	MOVZWL	#IOS, SETMODE!IOSM_CTRLVAST, -(SP)	
7E	0154	'CF	MOVZWL	CNTRCHAN, -(SP)	
	00	DD	PUSHL	#0	
00000000	'GF	0C	FB	CALLS	#12, G^SYSSQIO
		0091			
		0091			220
		0091			221
		0091			222
		0091			223
	7E	D4	0091		224
	031C	'CF	DF	0093	225
00000000	'GF	02	FB	0097	226
				009E	227
				009E	228
				009E	229
	0320	'CF	DD	009E	
00000000	'GF	01	FB	00A2	
				00A9	
				00A9	230
	FF54	'	30	00A9	231
				00AC	232
50	0309	'CF	D0	00AC	233
50	00000000	'8F	D1	00B1	234
	1A	12		00B8	235
				00BA	236
	030D	'CF	DD	00BA	237
	01		DD	00BE	238
	01FE115B	8F	DD	00C0	239
	50		DD	00C6	240
00000000	'GF	04	FB	00C8	241
				00CF	242
50	0309	'CF	D0	00CF	243
		04		00D4	244
				00D5	245

100\$:

```
;; Restore original out of band and resouce wait mode
CLRL -(SP)
PUSHAL OLDCTRL ; Reenable cli out of band characters
CALLS #2, G^LIB$ENABLE_CTRL

$SETRWM S - ; Set resource wait mode
WATFLG = OLDSETRWM ; to whatever it was upon entry
.GLOBL SYSSSETRWM
PUSHL OLDSETRWM
CALLS #1, G^SYSSSETRWM

BSBW CTERM$CLOSE_LOG ; Close log file if open

MOVL RETSTATUS, R0 ; Get saved status
CMPL #SS$EXQUOTA, R0 ; Exceeded some quota?
BNEQ 100$ ; nope, exit

PUSHL QUIT_PC
PUSHL #1
PUSHL #REMS_ATPC
PUSHL R0
CALLS #4, G^LIB$SIGNAL ; signal error

MOVL RETSTATUS, R0 ; Get saved status
RET ; Exit program
```

```
0005 247 .SBTTL INIT - INITIALIZATION OF LINK, ETC.
0005 248 :++
0005 249 : FUNCTIONAL DESCRIPTION:
0005 250 :
0005 251 : PERFORMS INITIALIZATION FUNCTIONS FOR RTPAD
0005 252 :
0005 253 : CALLING SEQUENCE:
0005 254 :
0005 255 : JSB INIT
0005 256 :
0005 257 : INPUT PARAMETERS:
0005 258 :
0005 259 : NONE
0005 260 :
0005 261 : IMPLICIT INPUTS:
0005 262 :
0005 263 : NONE
0005 264 :
0005 265 : OUTPUT PARAMETERS:
0005 266 :
0005 267 : NONE
0005 268 :
0005 269 : IMPLICIT OUTPUTS:
0005 270 :
0005 271 : CHANNEL NUMBERS, ETC.
0005 272 :
0005 273 : COMPLETION CODES:
0005 274 :
0005 275 : WILL RETURN COMPLETION CODES OF SYSTEM SERVICES WITH UNEXPECTED ERRORS
0005 276 :
0005 277 : SIDE EFFECTS:
0005 278 :
0005 279 : SETS UP DECNET LINK TO REMOTE NODE
0005 280 :
0005 281 : --
0005 282 :
0005 283 INIT:
0005 284 $TRNLOG_S -
0005 285 LOGNAM = SYS$NODE, - ; Translate a logical name
0005 286 RSLBUF = NODENAME, - ; from SYS$NODE
0005 287 RSLLEN = NODENAME ; to the ending message
; setting the correct length
0005 .GLOBL SYS$TRNLOG
00 DD 0005 PUSHL #0
0007 $PUSHADR 0,CONTEXT=B
0007 .IF IDN,0,0
00 DD 0007 PUSHL #0
0009 .IFF
0009 PUSHAB 0
0009 .ENDC
0009 $PUSHADR 0,CONTEXT=B
0009 .IF IDN,0,0
00 DD 0009 PUSHL #0
000B .IFF
000B PUSHAB 0
000B .ENDC
000B
```

```
00DB      $PUSHADR NODENAME,CONTEXT=Q
00DB      .IF      IDN,0,NODENAME
00DB      PUSHL    #0
00DB      .IFF
01B0'CF    7F 00DB      PUSHAQ  NODENAME
00DF      .ENDC
00DF      $PUSHADR NODENAME,CONTEXT=W
00DF      .IF      IDN,0,NODENAME
00DF      PUSHL    #0
00DF      .IFF
01B0'CF    3F 00DF      PUSHAW  NODENAME
00E3      .ENDC
00E3      $PUSHADR SYS$NODE,CONTEXT=Q
00E3      .IF      IDN,0,SYS$NODE
00E3      PUSHL    #0
00E3      .IFF
04C6'CF    7F 00E3      PUSHAQ  SYS$NODE
00E7      .ENDC
00E7      CALLS    #6,G^SYS$STRNLOG
00EE      ONERROR RET          ; Exit on error
01 50      EB 00EE      BLBS    RO,30000$
04         04 00F1      RET
00F2      30000$:
00F2
00F2      289
00F2      290
00F2      291
00F2      292
00F2      293
00 DD      00F2
00F4      00F4
00 DD      00F4
00F6      00F6
00F6      00F6
00F6      00F6
00F6      00F6
00 DD      00F6
00F8      00F8
00F8      00F8
00F8      00F8
00F8      00F8
02BA'CF    7F 00F8      00FC
00FC      00FC
00FC      $PUSHADR RTLOG_DESC,CONTEXT=Q
00FC      .IF      IDN,0,RTLOG_DESC
00FC      PUSHL    #0
00FC      .IFF
00FC      PUSHAB  0
00FC      .ENDC
00FC      $PUSHADR 0,CONTEXT=B
00FC      .IF      IDN,0,0
00FC      PUSHL    #0
00FC      .IFF
00FC      PUSHAB  0
00FC      .ENDC
00FC      $PUSHADR RTLOG_DESC,CONTEXT=W
```



			00FC		.IF IDN,0,RTLOG_DESC
			00FC		PUSHL #0
			00FC		.IFF
02BA'CF	3F		00FC		PUSHAW RTLOG_DESC
			0100		.ENDC
			0100		\$PUSHADR RTPAD_LOGNAM,CONTEXT=Q
			0100		.IF IDN,0,RTPAD_LOGNAM
			0100		PUSHL #0
			0100		.IFF
02D2'CF	7F		0100		PUSHAQ RTPAD_LOGNAM
			0104		.ENDC
			0104		
00000000'GF	06	FB	0104		CALLS #6,G^SYS\$TRNLOG
			010B		
0000'8F	50	B1	010B	294	CMPW R0,#SS\$_NOTRAN
	1E	13	0110	295	BEQL \$\$ ; continue if no definition
1B 50	E9		0112	296	BLBC R0,\$\$ ; or error
			0115	297	:
			0115	298	: translate hex byte string to binary value
			0115	299	:
02B6'CF	DF		0115	300	PUSHAL RTLOG_FLAGS ; flags
02C2'CF	9F		0119	301	PUSHAB RTLOG_BUF ; string
7E 02BA'CF	3C		011D	302	MOVZWL RTLOG_DESC,-(SP) ; length
00000000'GF	03	FB	0122	303	CALLS #3,G^LIB\$CVT_HTB ; convert hex to binary
	04 50	E8	0129	304	BLBS R0,\$\$ ; go if ok
02B6'CF	D4		012C	305	CLRL RTLOG_FLAGS ; otherwise zero
			0130	306	
			0130	307	\$\$:
			0130	308	\$GETDVI_S - ; Get the device characteristics
			0130	309	-DEVNAM = TTYDESC, - ; of the translated SYSS\$INPUT
			0130		ITMLST = DVILIST
			0130		.GLOBL SYSS\$GETDVI
00000000			0130		\$ASNPNUSH 0,#0
			0130		\$\$T1 = 0
			0130		.IF IDN,<0>,<0>
00000001			0130		.IF IDN,<#0>,<#0>
			0130		\$\$T1 = 1
			0130		.ENDC
			0130		.ENDC
00000001			0130		.IF NE \$\$T1
7E 7C			0130		CLRQ -(SP)
			0132		.IFF
			0132		\$PUSHADR 0,CONTEXT=Q
			0132		PUSHL #0
			0132		.ENDC
			0132		
			0132		\$PUSHADR 0
00 DD			0132		.IF IDN,0,0
			0134		PUSHL #0
			0134		.IFF
			0134		PUSHAL 0
			0134		.ENDC
			0134		
			0134		\$PUSHADR 0,CONTEXT=Q
00 DD			0134		.IF IDN,0,0
			0134		PUSHL #0
			0136		.IFF

```
0136          PUSHAQ 0
0136          .ENDC
0136          $PUSHADR DVILIST
0136          .IF IDN,0,DVILIST
0136          PUSHL #0
0136          .IFF
055E'CF DF 0136          PUSHAL DVILIST
0136          .ENDC
0136          $PUSHADR TTYDESC,CONTEXT=0
0136          .IF IDN,0,TTYDESC
0136          PUSHL #0
0136          .IFF
04D6'CF 7F 0136          PUSHAQ TTYDESC
0136          .ENDC
0136          MOVZWL #0,-(SP)
0136          PUSHL #0
00000000'GF 00 3C 0136          CALLS #8,G*SYSS$GETDVI
00 00 DD 0141
00 08 FB 0143
014A          310
01 50 E8 014A          ONERROR RET ; Die if any error
04 04 014A          BLBS R0,30001$
014D          RET
014E          30001$:
014E          311
014E          312
014E          313
014E          314
014E          $GETDEV_S - ; RSX, ETC. WANTS THIS
014E          DEVNAM = TTYDESC,-
014E          PRIBUF = TERMCHAR
014E          .GLOBL SYSS$GETDEV
014E          $PUSHADR 0,CONTEXT=0
014E          .IF IDN,0,0
00 DD 014E          PUSHL #0
0150          .IFF
0150          PUSHAQ 0
0150          .ENDC
0150          $PUSHADR 0,CONTEXT=W
0150          .IF IDN,0,0
00 DD 0150          PUSHL #0
0152          .IFF
0152          PUSHAW 0
0152          .ENDC
0152          $PUSHADR TERMCHAR,CONTEXT=0
0152          .IF IDN,0,TERMCHAR
0152          PUSHL #0
0152          .IFF
0084'CF 7F 0152          PUSHAQ TERMCHAR
0156          .ENDC
0156          $PUSHADR 0,CONTEXT=W
0156          .IF IDN,0,0
00 DD 0156          PUSHL #0
0158          .IFF
0158          PUSHAW 0
```

```
0158 .ENDC
0158 $PUSHADR TTYDESC,CONTEXT=0
0158 .IF IDN,0,TTYDESC
0158 PUSHL #0
0158 .IFF
0158 PUSHAQ TTYDESC
0158 .ENDC
04D6'CF 7F 0158
015C
00000000'GF 05 FB 015C
0163
01 50 E8 0163 315 ONERROR RET
04 0163 BLBS R0,30002$
0166 RET
0167 30002$:
0167
0167 316
0060'CF 0054'CF 90 0167 317 MOVB DEVCLASS TEMP,DEVCLASS ; Pack the data correctly
0061'CF 0058'CF 90 016E 318 MOVB DEVTYPE TEMP,DEVTYPE
0062'CF 005C'CF B0 0175 319 MOVW DEVBUFSIZ_TEMP,DEVBUFSIZ
017C 320
00'8F 0060'CF 91 017C 321 CMPB DEVCLASS, #DC$_TERM ; Is it a terminal?
12 13 0182 322 BEQL 10$ ; Yes
0184 323 $PUTMSG_S - ; Output an error message
0184 324 MSGVEC = NOTTERM ; saying SYS$COMMAND not a terminal
0184
00 DD 0184
0186
00 DD 0186
0186
0188
0188
0188
0188
0188
0188
00 DD 0188
018A
018A
018A
018A
018A
018A
018A
018A
011C'CF DF 018A
018E
00000000'GF 04 FB 018E
0195
04 0195 325 RET
0196 326
0196 327
0196 328
0196 329
0196 330 10$:
0158'CF 3F 0196 331 PUSHAW TERMMBXCHAN ; Arg #5 is the terminal mailbox chan
```

```
014C'CF 3F 019A 332 PUSHAW READCHAN ; Arg #4 is the terminal input channel
0764'CF DF 019E 333 PUSHAL MAXMSGSI2 ; Arg #3 is the message buffer quota
0764'CF DF 01A2 334 PUSHAL MAXMSGSI2 ; Arg #2 is the maximum message size
04D6'CF 7F 01A6 335 PUSHAQ TTYDESC ; Arg #1 is the terminal device name
00000000'GF 05 FB 01AA 336 CALLS #5, G^LIB$ASN_WTH_MBX ; Assign a channel w/ a mailbox
01 50 E8 01B1 337 ONERROR RET ; Die if any error
04 01B1 BLBS R0,30003$
01B5 RET
01B5 30003$:
01B5
01B5 338
01B5 339 ; Assign a terminal write channel
01B5 340
01B5 341 $ASSIGN_S - ; Assign a channel
01B5 342 DEVNAM = TTYDESC, - ; to the terminal device
01B5 343 CHAN = WRITECHAN ; for terminal output
01B5
01B5 $ASNPUSH 0,#0
01B5 $ST1 = 0
01B5 .IF IDN,<0>,<0>
01B5 .IF IDN,<#0>,<#0>
01B5 $ST1 = 1
01B5 .ENDC
01B5 .ENDC
01B5 .IF NE $ST1
01B5 CLRQ -(SP)
01B7 .IFF
01B7 $PUSHADR 0,CONTEXT=Q
01B7 PUSHL #0
01B7 .ENDC
01B7
01B7 $PUSHADR WRITECHAN,CONTEXT=W
01B7 .IF IDN,0,WRITECHAN
01B7 PUSHL #0
01B7 .IFF
01B7 PUSHAW WRITECHAN
01B8 .ENDC
01B8
01B8 $PUSHADR TTYDESC,CONTEXT=Q
01B8 .IF IDN,0,TTYDESC
01B8 PUSHL #0
01B8 .IFF
01B8 PUSHAQ TTYDESC
01B8 .ENDC
01B8
01B8 CALLS #4,G^SYSS$ASSIGN
00000000'GF 04 FB 01BF 344 ONERROR RET ; Die if any error
01 50 E8 01C6 345 BLBS R0,30004$
04 01C6 RET
01C9 30004$:
01CA
01CA 345
01CA 346 ; See if SYSS$INPUT is a file
01CA 347
01CA 348 $OPEN FAB = SYSINFAB ; Open SYSS$INPUT
01CA $RMSCALL OPEN,SYSINFAB,,
```



```
01CA .GLOBL SYSS$OPEN
01CA .IF B <SYSINFAB>
01CA CALLG (AP),G^SYSS$OPEN
01CA $$TMP=0
01CA .IF NB <>
01CA $$TMP=1
01CA .ENDC
01CA .IF NB <>
01CA $$TMP=1
01CA .ENDC
01CA .IF NE $$TMP
01CA .ERROR ; SYSINFAB= parameter missing;
01CA .ENDC
01CA .ENDC
01CA .IF NB <SYSINFAB>
00000001 01CA $$TMP1=1
01CA .IF NB <>
01CA PUSHAL
01CA $$TMP1=3
01CA .ENDC
01CA .IF NB <>
01CA PUSHAL
01CA .IF EQ <$$TMP1-1>
01CA $$TMP1=2
01CA .ENDC
01CA .IFF
01CA .IF EQ <$$TMP1-3>
01CA PUSHL #0
01CA .ENDC
01CA .ENDC
000000CF 01CA .NTYPE $$TMP2, SYSINFAB
00000070 01CA .IF EQ <<$$TMP2&^XF0>-^X50>
01CA PUSHL SYSINFAB
01CA .IFF
01CA .IF EQ <<$$TMP2&^XF0>-^X10>
01CA PUSHL SYSINFAB
01CA .IFF
021C'CF DF 01CA PUSHAL SYSINFAB
01CE .ENDC
01CE .ENDC
00000000'GF 01 FB 01CE CALLS #$$TMP1,G^SYSS$OPEN
01D5 .ENDC
01D5
01D5 349
01 50 E8 01D5 ONERROR RET
04 01D5 BLBS R0,30005$
01D8 RET
01D9 30005$:
01D9
00000000'8F E0 01D9 350
15 025C'CF 01DF 351
0280'CF 96 01E3 352
01E7 353
01E7
01E7
01E7
01E7
01E7
```

```
01E7      $$TMP=0
01E7      .IF      NB <>
01E7      $$TMP=1
01E7      .ENDC
01E7      .IF      NB <>
01E7      $$TMP=1
01E7      .ENDC
01E7      .IF      NE $$TMP
01E7      .ERROR
01E7      .ENDC
01E7      .ENDC
00000001 01E7      .IF      NB <SYSINRAB>
01E7      $$TMP1=1
01E7      .IF      NB <>
01E7      PUSHAL
01E7      $$TMP1=3
01E7      .ENDC
01E7      .IF      NB <>
01E7      PUSHAL
01E7      .IF      EQ <$$TMP1-1>
01E7      $$TMP1=2
01E7      .ENDC
01E7      .IFF
01E7      .IF      EQ <$$TMP1-3>
01E7      PUSHL      #0
01E7      .ENDC
01E7      .ENDC
000000CF 01E7      .NTYPE  $$TMP2, SYSINRAB
00000070 01E7      .IF      EQ <<$$TMP2&^XF0>-^X50>
01E7      PUSHL      SYSINRAB
01E7      .IFF
01E7      .IF      EQ <<$$TMP2&^XF0>-^X10>
01E7      PUSHL      SYSINRAB
01E7      .IFF
026C'CF  DF 01E7      PUSHAL  SYSINRAB
01E7      .ENDC
01E7      .ENDC
00000000'GF 01  FB 01E7      CALLS      #$$TMP1,G^SYSS$CONNECT
01F2      .ENDC
01F2
01F2      354      ONERROR RET
01F2      BLBS      R0,30006$
01 50  E8 04 01F2      RET
01F5      30006$:
01F6
01F6      355      BRB      30$
01F6      356
01F8      357 20$: $CLOSE  FAB = SYSINFAB      ; Won't use it
01F8      $RMSCALL  CLOSE,SY$INFAB,,
01F8      .GLOBL  SYS$CLOSE
01F8      .IF      B <SYSINFAB>
01F8      CALLG    (AP),G^SYSS$CLOSE
01F8      $$TMP=C
01F8      .IF      NB <>
01F8      $$TMP=1
01F8      .ENDC
```

```
01F8      .IF      NB <>
01F8      $$TMP=1
01F8      .ENDC
01F8      .IF      NE $$TMP
01F8      .ERROR                                ; SYSINFAB= parameter missing;
01F8      .ENDC
01F8      .ENDC
01F8      .IF      NB <SYSINFAB>
00000001 01F8      $$TMP1=1
01F8      .IF      NB <>
01F8      PUSHAL
01F8      $$TMP1=3
01F8      .ENDC
01F8      .IF      NB <>
01F8      PUSHAL
01F8      .IF      EQ <$$TMP1-1>
01F8      $$TMP1=2
01F8      .ENDC
01F8      .IFF
FFFFF7FE 01F8      .IF      EQ <$$TMP1-3>
01F8      PUSHL    #0
01F8      .ENDC
01F8      .ENDC
000000CF 01F8      .NTYPE  $$TMP2, SYSINFAB
0000007J 01F8      .IF      EQ <<$$TMP2&^XF0>-^X50>
01F8      PUSHL    SYSINFAB
01F8      .IFF
000000B0 01F8      .IF      EQ <<$$TMP2&^XF0>-^X10>
01F8      PUSHL    SYSINFAB
01F8      .IFF
021C'CF  DF 01F8      PUSHAL  SYSINFAB
01FC      .ENDC
01FC      .ENDC
00000000'GF 01  FB 01FC      CALLS    #$$TMP1,G^SYSSCLOSE
0203      .ENDC
0203
0203      358 30$:
0203      359
0203      360      :: Check for /LOG [=filespec]
0203      361
0203      362
0203      363
00000000'GF 01  FB 0203      363      PUSHAQ  LOG_DESC
0207      364      CALLS    #1,G^CLIS$PRESENT
020E      365      BLBC     RO, 62$
0211      366      ; LOG label
0211      367      ; See if present
0215      368      ; branch if not present
0219      369
00000000'GF 02  FB 0211      367      PUSHAQ  LOG_FILE_DESC
0215      368      PUSHAQ  LOG_DESC
0219      369      CALLS    #2,G^CLIS$GET_VALUE
0220      370      BLBC     RO, 61$
0223      371      ; return buffer
0223      372      ; LOG label
0227      373      ; get value
022E      374      ; continue if no error
0231      375      61$:
0232      376      62$:
0232      377      ;
0232      377      ;
```

```
0232 378 ; Get node name from CLI
0233 379 ;
0198'CF 7F 0232 380 PUSHAQ NODE_NAME_DESC ; Return buffer
017D'CF 7F 0233 381 PUSHAQ NODEDESC ; Parameter name
00000000'GF 02 FB 023A 382 CALLS #2, G^CLISGET_VALUE ; Get node name
0241 383 ONERROR RET ; Exit on error
01 50 EB 0241 384 BLBS RO,30007$
04 0244 385 RET
0245 386 30007$:
0245 384
0245 385
0245 386
0245 387
0245 388
0172'CF 7F 0245 389 PUSHAQ DTE_DESC ; DTE label
00000000'GF 01 FB 0249 390 CALLS #1, G^CLISPRESENT ; See if present
29 50 E9 0250 391 BLBC RO, NOT_DTE ; branch if not present
0253 392
0253 393
0253 394 ; Kludge NODENAME so CR,LF happen on exit
0253 395
050 01B0'CF 3C 0253 396 MOVZWL NODENAME,RO ; length
050 01B4'CF C0 0258 397 ADDL2 NODENAME+4,RO ; plus address
01B0'CF 02 A0 025D 398 ADDW #2,NODENAME ; add to length
60 0DOA 8F B0 0262 399 MOVW #^XODOA,(RO) ; CR,LF
7E 0150'CF 3C 0267 400 MOVZWL WRITECHAN,-(SP) ; command channel
0198'CF 7F 026C 402 PUSHAQ NODE_NAME_DESC ; value of P1
00000000'GF 02 FB 0270 403 CALLS #2, G^TERM$EMULATE ; call terminal emulation code
0277 404 ONERROR RET ; exit immediately on error
01 50 EB 0277 405 BLBS RO,30008$
04 027A 406 RET
027B 407 30008$:
05 027B 405 RSB ; otherwise, return to hiber code
027C 406
027C 407 NOT_DTE:
027C 408
027C 409 ; Assign a channel for ^C and ^Y handling
027C 410
027C 411 $ASSIGN_S = ; Assign a channel
027C 412 DEVNAM = TTYDESC, - ; to the terminal device
027C 413 CHAN = CNTRLCHAN ; for control (AST's)
027C
027C $ASNPUSH 0,#0
00000000 027C $ST1 = 0
027C .IF IDN,<0>,<0>
027C .IF IDN,<#0>,<#0>
00000001 027C $ST1 = 1
027C .ENDC
027C .ENDC
00000001 027C .IF NE $ST1
7E 7C 027C CLRQ -(SP)
027E .IFF
027E $PUSHADR 0,CONTEXT=0
027E PUSHL #0
```



```
0154'CF 3F 027E .ENDC
027E $PUSHADR CNTRLCHAN,CONTEXT=W
027E .IF IDN,0,CNTRLCHAN
027E PUSHL #0
027E .IFF
027E PUSHAW CNTRLCHAN
0282 .ENDC
0282 $PUSHADR TTYDESC,CONTEXT=Q
0282 .IF IDN,0,TTYDESC
0282 PUSHL #0
0282 .IFF
0282 PUSHAQ TTYDESC
0286 .ENDC
00000000'GF 04 FB 0286 CALLS #4,G^SYSS$ASSIGN
028D
01 50 E8 028D 414 ONERROR RET ; Die if any error
04 04 028D BLBS R0,30009$
0290 RET
0291 30009$:
0291
0291 415
0291 416
0291 417 ; Loop through node name to remove trailing ':'s
0291 418
0291 419
0291 420
52 0198'CF 7D 0291 420 MOVQ NODE_NAME_DESC, R2 ; Get node name length, address
52 52 3C 0296 421 MOVZWL R2, R2 ; and isolate its real length
0A 13 0299 422 BEQL 50$ ; No length??
3A FF A342 91 029B 423 40$: CMPB -1(R3)[R2], #'A':' ; A trailing colon?
09 12 02A0 424 BNEQ 60$ ; Nope
F6 52 F5 02A2 425 SOBGTR R2, 40$ ; Yep, remove it from count and loop
50 0000'8F 3C 02A5 426 50$: MOVZWL #SS$_NOSUCHNODE, R0 ; Error
04 02AA 427 RET ; and exit
0000'CF 52 7D 02AB 428
02AB 429 60$: MOVQ R2, REMOTENODE ; Save the node name descriptor
02B0 430
02B0 431
02B0 432 ; Form the network connection string
02B0 433
02B0 434
0189'CF 7F 02B0 435 PUSHAQ OBJ_DESC ; Arg #3 is the right part (obj type)
0000'CF 7F 02B4 436 PUSHAQ REMOTENODE ; Arg #2 is the left part (node name)
01A8'CF 7F 02B8 437 PUSHAQ CONNDESC ; Arg #1 is the resultant string
00000000'GF 03 FB 02BC 438 CALLS #3, G^STR$CONCAT ; Go concatenate for connection string
02C3 439 ONERROR RET ; Exit on error
01 50 E8 02C3
04 04 02C6 BLBS R0,30010$
02C7 RET
02C7 30010$:
58 01AC'CF 52 C1 02C7 440 ADDL3 R2, CONNDESC+4, R8 ; Address just beyond node name
58 03 C0 02CD 441 ADDL S^#OBJ_C_PREFIX, R8 ; then offset to object number
02D0 442
02D0 443
02D0 444 ; *** TEMPORARY CODE TO DETECT /OLD QUALIFIER
```

```
00000000' 015C'CF 7F 02D0 445 ;
GF 01 FB 02D0 446 : pushaq old_desc : *** TEMP
05 50 E9 02D4 447 : calls #1, g^cli$present : *** TEMP
68 3332 8F B0 02DB 448 : blbc r0, 65$ : *** TEMP; /NOOLD, go try 42 first
02DE 449 : *** TEMP; /OLD, change to 23
02E3 450 65$: : *** TEMP
02E3 451
02E3 452
02E3 453 : Connect to the remote node by requesting a logical link
02E3 454
02E3 455
00000000' 0208'CF 7F 02E3 456 70$: PUSHAQ PSTHRU MSG : Address the PSTHRU message desc
GF 01 FB 02E7 457 : CALLS #1, G^STR$FREE1_DX : and free up anything in it
01 50 E8 02EE 458 : ONERROR RET : Exit on error
04 02EE
02F1
02F2
02F2
0764'CF 3F 02F2 459 PUSHAQ MAXMSGISZ : Arg #7 is the maximum message size
0421'CF 9F 02F6 460 PUSHAQ 180$ : Arg #6 is the message call routine
0200'CF 7F 02FA 461 PUSHAQ FINALACS : Arg #5 is the final ACS desc
01F8'CF 7F 02FE 462 PUSHAQ FINALPATH : Arg #4 is the final path desc
0148'CF 3F 0302 463 PUSHAQ MAILCHAN : Arg #3 is the link mailbox channel
0144'CF 3F 0306 464 PUSHAQ LINKCHAN : Arg #2 is the link channel
01A8'CF 7F 030A 465 PUSHAQ CONNDESC : Arg #1 is the 'device' desc
00000000'GF 07 FB 030E 466 : CALLS #7, G^UNS$NET_CONNECT : Do the remote node connection
13 50 E8 0315 467 : BLBS R0, 80$ : Continue if success completion
0318 468
0318 469
0318 470 : If object type 42 failed then try object type 23
0318 471
0318 472
68 51 68 B0 0318 473 MOVW (R8), R1 : Save the object type we just tried
3332 8F B0 031B 474 MOVW #^A'23', (R8) : then replace it object type 23
3332 8F 51 B1 0320 475 CMPW R1, #^A'23' : Did we just try object type 23?
BC 12 0325 476 BNEQ 70$ : Nope, so go try object type 23
00E0 30 0327 477 BSBW 170$ : Go output any saved PSTHRU message(s)
04 032A 478 RET : then exit with the error
00DC 30 032B 479
032B 480 80$: BSBW 170$ : Go output any saved PSTHRU message(s)
032E 481
032E 482
032E 483 : Read initial message from HOST process, this is the
032E 484 : BIND message in TSA terminology.
032E 485
032E 486
55 0324'CF 9E 032E 487 MOVAB FIRSTMSG, R5 : Address of area to receive message
0333 488 $QIOW_S - : Read CONFIG message
0333 489 CHAN = LINKCHAN, - : on the link channel
0333 490 FUNC = #IOS$ READVBLK, - : reading obviously
0333 491 IOSB = AST$Q IOSB(R5), - : use an IOSB
0333 492 P1 = AST$T BOF(R5), - : into this buffer
0333 493 P2 = #MAXMSG : which is this long
0333
0333 .GLOBL SYSSQIOW
0333 $PUSHTWO #0, #0
00000000 0333 $ST1 = 0
0333 .IF IDN, <#0>, <#0>
```

00000001	0333	.IF	IDN,<#0>,<#0>
	0333	\$\$T1 = 1	
	0333	.ENDC	
00000001	0333	.ENDC	
7E 7C	0333	.IF	NE \$\$T1
	0333	CLRQ	-(SP)
	0333	.IFF	
	0333	PUSHL	#0
	0333	PUSHL	#0
	0333	.ENDC	
	0333		
00000000	0333	\$PUSHTWO	#0,#0
	0333	\$\$T1 = 0	
	0333	.IF	IDN,<#0>,<#0>
	0333	.IF	IDN,<#0>,<#0>
00000001	0333	\$\$T1 = 1	
	0333	.ENDC	
	0333	.ENDC	
00000001	0333	.IF	NE \$\$T1
7E 7C	0333	CLRQ	-(SP)
	0337	.IFF	
	0337	PUSHL	#0
	0337	PUSHL	#0
	0337	.ENDC	
0000041A 8F DD	0337	PUSHL	#MAXMSG
	033D	\$PUSHADR	AST\$T_BUF(R5)
	033D	.IF	IDN,0,AST\$T_BUF(R5)
	033D	PUSHL	#0
	033D	.IFF	
26 A5 DF	033D	PUSHAL	AST\$T_BUF(R5)
	0340	.ENDC	
	0340		
00000000	0340	\$QIOPUSH	#0,0
	0340	\$\$T1 = 0	
	0340	.IF	IDN,<#0>,<#0>
	0340	.IF	IDN,<0>,<0>
00000001	0340	\$\$T1 = 1	
	0340	.ENDC	
	0340	.ENDC	
00000001	0340	.IF	NE \$\$T1
7E 7C	0340	CLRQ	-(SP)
	0342	.IFF	
	0342	PUSHL	#0
	0342	\$PUSHADR	0
	0342	.ENDC	
	0342		
	0342	\$PUSHADR	AST\$Q_IOSB(R5),CONTEXT=0
	0342	.IF	IDN,0,AST\$Q_IOSB(R5)
	0342	PUSHL	#0
	0342	.IFF	
04 A5 7F	0342	PUSHAQ	AST\$Q_IOSB(R5)
	0345	.ENDC	
	0345		
7E 7E 31 3C	0345	MOVZWL	#IOS_READVBLK, -(SP)
7E 0144 CF 3C	0348	MOVZWL	LINK\$CHAN, -(SP)
00 DD	034D	PUSHL	#0

Address	Op	Op2	Op3	Op4	Op5	Op6	Op7	Op8	Op9	Op10	Op11	Op12	Op13	Op14	Op15	Op16	Op17	Op18	Op19	Op20	Op21	Op22	Op23	Op24	Op25	Op26	Op27	Op28	Op29	Op30	Op31	Op32	Op33	Op34	Op35	Op36	Op37	Op38	Op39	Op40	Op41	Op42	Op43	Op44	Op45	Op46	Op47	Op48	Op49	Op50	Op51	Op52	Op53	Op54	Op55	Op56	Op57	Op58	Op59	Op60	Op61	Op62	Op63	Op64	Op65	Op66	Op67	Op68	Op69	Op70	Op71	Op72	Op73	Op74	Op75	Op76	Op77	Op78	Op79	Op80	Op81	Op82	Op83	Op84	Op85	Op86	Op87	Op88	Op89	Op90	Op91	Op92	Op93	Op94	Op95	Op96	Op97	Op98	Op99	Op100	Op101	Op102	Op103	Op104	Op105	Op106	Op107	Op108	Op109	Op110	Op111	Op112	Op113	Op114	Op115	Op116	Op117	Op118	Op119	Op120	Op121	Op122	Op123	Op124	Op125	Op126	Op127	Op128	Op129	Op130	Op131	Op132	Op133	Op134	Op135	Op136	Op137	Op138	Op139	Op140	Op141	Op142	Op143	Op144	Op145	Op146	Op147	Op148	Op149	Op150	Op151	Op152	Op153	Op154	Op155	Op156	Op157	Op158	Op159	Op160	Op161	Op162	Op163	Op164	Op165	Op166	Op167	Op168	Op169	Op170	Op171	Op172	Op173	Op174	Op175	Op176	Op177	Op178	Op179	Op180	Op181	Op182	Op183	Op184	Op185	Op186	Op187	Op188	Op189	Op190	Op191	Op192	Op193	Op194	Op195	Op196	Op197	Op198	Op199	Op200	Op201	Op202	Op203	Op204	Op205	Op206	Op207	Op208	Op209	Op210	Op211	Op212	Op213	Op214	Op215	Op216	Op217	Op218	Op219	Op220	Op221	Op222	Op223	Op224	Op225	Op226	Op227	Op228	Op229	Op230	Op231	Op232	Op233	Op234	Op235	Op236	Op237	Op238	Op239	Op240	Op241	Op242	Op243	Op244	Op245	Op246	Op247	Op248	Op249	Op250	Op251	Op252	Op253	Op254	Op255	Op256	Op257	Op258	Op259	Op260	Op261	Op262	Op263	Op264	Op265	Op266	Op267	Op268	Op269	Op270	Op271	Op272	Op273	Op274	Op275	Op276	Op277	Op278	Op279	Op280	Op281	Op282	Op283	Op284	Op285	Op286	Op287	Op288	Op289	Op290	Op291	Op292	Op293	Op294	Op295	Op296	Op297	Op298	Op299	Op300	Op301	Op302	Op303	Op304	Op305	Op306	Op307	Op308	Op309	Op310	Op311	Op312	Op313	Op314	Op315	Op316	Op317	Op318	Op319	Op320	Op321	Op322	Op323	Op324	Op325	Op326	Op327	Op328	Op329	Op330	Op331	Op332	Op333	Op334	Op335	Op336	Op337	Op338	Op339	Op340	Op341	Op342	Op343	Op344	Op345	Op346	Op347	Op348	Op349	Op350	Op351	Op352	Op353	Op354	Op355	Op356	Op357	Op358	Op359	Op360	Op361	Op362	Op363	Op364	Op365	Op366	Op367	Op368	Op369	Op370	Op371	Op372	Op373	Op374	Op375	Op376	Op377	Op378	Op379	Op380	Op381	Op382	Op383	Op384	Op385	Op386	Op387	Op388	Op389	Op390	Op391	Op392	Op393	Op394	Op395	Op396	Op397	Op398	Op399	Op400	Op401	Op402	Op403	Op404	Op405	Op406	Op407	Op408	Op409	Op410	Op411	Op412	Op413	Op414	Op415	Op416	Op417	Op418	Op419
---------	----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------



```
00 DD 03A0 .IF IDN,0,0
      03A0 PUSHL #0
      03A2 .IFF
      03A2 PUSHAQ 0
      03A2 .ENDC
      03A2 $PUSHADR 0
      00 DD 03A2 .IF IDN,0,0
      03A4 PUSHL #0
      03A4 .IFF
      03A4 PUSHAL 0
      03A4 .ENDC
      03A4 $PUSHADR NCTVMS
      03A4 .IF IDN,0,NOTVMS
      03A4 PUSHL #0
      03A4 .IFF
      0138'CF DF 03A4 PUSHAL NOTVMS
      03A8 .ENDC
00000000'GF 04 FB 03A8 CALLS #4,G^SYS$PUTMSG
      04 03AF 521 RET
      03B0 522
      03B0 523
      03B0 524
      03B0 525
      03B0 526
      03B0 527
0319'CF 28 A5 90 03B0 528 140$: MOVB AST$T_BUF+2(R5),PROTO_ECO ; Save eco level
031A'CF 2A A5 80 03B6 529 MOVW AST$T_BUF+4(R5),HOST_OPSYS ; Save host operating system
      52 7FFC'CF 9E 03BC 530
      52 04 C0 03C1 531
00000000'8F 52 D1 03C4 532 150$: ADDL #4, R2 ; Index over address to bit number
      D1 1E 03CB 533 ; Are we out of protocols?
      82 2C A5 B3 03CD 534 BGEQU 130$ ; Yep, protocol not supported
      EE 13 03D1 535 BITW AST$T_BUF+6(R5),(R2)+ ; Not yet, does the bit match?
      03D3 536 BEQL 150$ ; No match, loop for next protocol
      03D3 537
      03D3 538 ; R2 is now address of protocol module routine
      03D3 539
      031C'CF DF 03D3 540
      031C'CF DF 03D7 541
00000000'GF 02 FB 03DB 542
      03E2 543
      031C'CF DF 03E2 544
      031C'CF DF 03E6 545
00000000'GF 02 FB 03EA 546
      03F1 547
      03F1 548
      C3F1 549
      03F1 550
00000000'GF 01 DD 03F1
      01 FB 03F3
      03FA
0000'8F 50 B1 03FA 551
      CMPW R0, #SS$_WASCLR ; Was it already off?
```

```
04 13 03FF 552 BEQL 160$ : Nope, we'll turn it back on at exit
0320'CF D6 0401 553 INCL OLDSETRWM : Yep, we'll keep it off at exit
      0405 554
      0405 555
      0405 556
      0405 557 : Call the appropriate protocol module...
      0405 558 160$:
00 B2 00 FB 0405 559 CALLS #0, @R2) : Go start up selected protocol
      05 0409 560 RSB : Done
      040A 561
0208'CF B5 040A 562 170$: TSTW PSTHRU_MSG : Any saved PSTHRU message(s)?
      10 13 040E 563 BEQL 175$ : Nope
      50 DD 0410 564 PUSHL R0 : Yep, save the status code
0208'CF 7F 0412 565 PUSHAQ PSTHRU_MSG : Address the saved message(s)
00000000'GF 01 FB 0416 566 CALLS #1, G^CIB$PUT_OUTPUT : and go output them
      50 8E D0 0410 567 MOVL (SP)+, R0 : Restore the status code
      05 0420 568 175$: RSB : Exit
      0421 569
06 AC 01FE 8F 0000 0421 570 180$: .WORD ^M<> : Message call back routine
      B0 0423 571 MOVW #REMS_FACILITY, 4+2(AP) : Replace facility code with ours
      0429 572 $PUTMSG_S - : Use $PUTMSG
      0429 573 MSGVEC = (AP), - : with the supplied message vector
      0429 574 ACTRTN = 190$ : calling this action routine
      0429 .GLOBL SYSS$PUTMSG
      00 DD 0429 PUSHL #0
      042B $PUSHADR 0,CONTEXT=0
      00 DD 042B .IF IDN,0,0
      042B PUSHL #0
      042D .IFF
      042D PUSHAQ 0
      042D .ENDC
      042D $PUSHADR 190$
      042D .IF IDN,0,190$
      042D PUSHL #0
      042D .IFF
      042D PUSHAL 190$
      0431 .ENDC
      0431 $PUSHADR (AP)
      0431 .IF IDN,0,(AP)
      0431 PUSHL #0
      0431 .IFF
      6C DF 0431 PUSHAL (AP)
      0433 .ENDC
00000000'GF 04 FB 0433 CALLS #4,G^SYSS$PUTMSG
      04 043A 575 RET : Return
      043B 576
      0000 043B 577 190$: .WORD ^M<> : Action routine for $PUTMSG
0208'CF B5 043D 578 TSTW PSTHRU_MSG : Anything saved yet?
      OF 13 0441 579 BEQL 200$ : Nope
0210'CF 7F 0443 580 PUSHAQ PSTHRU_CRLF : Arg #2 is the string to append
0208'CF 7F 0447 581 PUSHAQ PSTHRU_MSG : Arg #1 is the string to append to
00000000'GF 02 FB 044B 582 CALLS #2, G^STR$APPEND : Go save message by appending
      04 BC 7F 0452 583 200$: PUSHAQ @4(AP) : Arg #2 is the string to append
```

```
00000000'0208'CF 7F 0455 584 PUSHAQ PSTHRU MSG ; Arg #1 is the string to append to
00000000'GF 02 FB 0459 585 CALLS #2, G^STR$APPEND ; Go save message by appending
50 04 D4 0460 586 CLRL R0 ; Say we don't want any output now
04 0462 587 RET ; then return
0463 588
0000 0463 589 CTERM_RT: ; CTERM protocol initialization
0465 590 .WORD *M<> ; No register(s) to save
02B2'CF 96 0465 592 INCB CTERM_FLAG ; Indicate CTERM protocol
50 04E9'CF 7E 0469 593 movaq infomsg1,R0 ; assume not vax to vax
031A'CF 07 B1 046E 595 CMPW #7,HOST_OPSYS ; Talking to VMS?
0A 12 0473 596 BNEQ 10$ ; nope
10 AB 0475 597 BLSW #FLGSM,VAXHOST,- ;
50 02B2'CF 0477 598 CTERM_FLAG ; Set flag
50 0522'CF 7E 047A 599 movaq infomsg2,R0 ; vax to vax
047F 600 10$:
00 E1 047F 601 BBC #RTLOG$V,BANNER,- ; Branch if not requested
11 02B6'CF 0481 602 RTLOG_FLAGS,20$
50 DD 0485 603 pushl R0
01 DD 0487 604 pushl #1
01FE1130'8F DD 0489 605 pushl #<shr$text!sts$k_info>!<rem$facility@16> ;
00000000'GF 03 FB 048F 606 calls #3,g^lib$signal ;
0496 607
0000'CF 00 FB 0496 608 20$: CALLS #0, VMSRT ; Go join the VMSRT protocol
04 049B 609 RET ; then exit
```

```
049C 611 .SBTTL RECORD_QUIT - snapshot QUIT info
049C 612
049C 613 RECORD_QUIT::
049C 614
030D'CF 6E DO 049C 615      MOVL      (SP),QUIT_PC      ; save caller PC
04A1 616
04A1 617      $GETJPIW S -
04A1 618      EFN = #5,-
04A1 619      PIDADR = LOCAL_PID,-
04A1 620      ITMLST = GETJPI_ITMLST,-
04A1 621      IOSB = JPI_IOSB
04A1      .GLOBL SYS$GETJPIW
04A1      $PIOPUSH #0,0
00000000 04A1      $ST1 = 0
04A1      .IF      IDN,<#0>,<#0>
04A1      .IF      IDN,<0>,<0>
00000001 04A1      $ST1 = 1
04A1      .ENDC
04A1      .ENDC
00000001 04A1      .IF      NE $ST1
7E 7C 04A1      CLRQ      -(SP)
04A3      .IFF
04A3      PUSHL      #0
04A3      $PUSHADR 0
04A3      .ENDC
04A3
04A3      $PUSHADR JPI_IOSB,CONTEXT=0
04A3      .IF      IDN,0,JPI_IOSB
04A3      PUSHL      #0
0004'CF 7F 04A3      .IFF
04A3      PUSHAQ      JPI_IOSB
04A7      .ENDC
04A7
04A7      $PUSHADR GETJPI_ITMLST
04A7      .IF      IDN,0,GETJPI_ITMLST
04A7      PUSHL      #0
04A7      .IFF
000C'CF DF 04A7      PUSHAL      GETJPI_ITMLST
04AB      .ENDC
04AB
04AB      $PUSHADR 0,CONTEXT=0
04AB      .IF      IDN,0,0
00  DD 04AB      PUSHL      #0
04AD      .IFF
04AD      PUSHAQ      0
04AD      .ENDC
04AD
04AD      $PUSHADR LOCAL_PID
04AD      .IF      IDN,0,LOCAL_PID
04AD      PUSHL      #0
04AD      .IFF
0000'CF DF 04AD      PUSHAL      LOCAL_PID
04B1      .ENDC
04B1
00000000'GF 05 DD 04B1      PUSHL      #5
07 FB 04B3      CALLS      #7,G*SYS$GETJPIW
04BA
```



RTPAD  
V04-000

- REMOTE TERMINAL PROGRAM  
RECORD\_QUIT - snapshot QUIT info

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50	08 50	E9	04BA	622	BLBC	RO,100\$
	0004'CF	3C	04BD	623	MOVZWL	JPI,IOSB,RO
	00 50	E9	04C2	624	BLBC	RO,T00\$
			04C5	625	100\$:	
		05	04C5	626	RSB	
			04C6	627		

```
04C6 629 .SBTTL READ ONLY DATA
04C6 630
4F 4E 24 53 59 53 000004CE'010E0000' 04C6 631 SYS$NODE: .ASCII /SYS$NODE/
45 44 04D4
4F 43 24 53 59 53 000004DE'010E0000' 04D6 632 TTYDESC:: .ASCII /SYS$COMMAND/
44 4E 41 4D 4D 04E4
04E9 633
65 74 6F 6D 65 72 000004F1'010E0000' 04E9 634 infomsg1: .ascii /remote terminal is using CTERM protocol (non-vax)/ ; *** TE
73 69 20 6C 61 6E 69 6D 72 65 74 20 04F7
4D 52 45 54 43 20 67 6E 69 73 75 20 0503
6E 28 20 6C 6F 63 6F 74 6F 72 70 20 050F
29 78 61 76 2D 6E 6F 051B
65 74 6F 6D 65 72 0000052A'010E0000' 0522 635 infomsg2: .ascii /remote terminal is using CTERM protocol (vax-to-vax)/ ; ***
73 69 20 6C 61 6E 69 6D 72 65 74 20 0530
4D 52 45 54 43 20 67 6E 69 73 75 20 053C
76 23 20 6C 6F 63 6F 74 6F 72 70 20 0548
79 78 61 76 2D 6F 74 2D 78 61 0554
055E 636
0004 0004 055E 637 DVILIST:
00000000'00000054' 0562 638 .WORD 4,DVIS_DEVCLASS ; Device class
056A 639 .ADDRESS DEVCLASS_TEMP,0
0006 0004 056A 640
00000000'00000058' 056A 641 .WORD 4,DVIS_DEVTYPE ; Device type
056E 642 .ADDRESS DEVTYPE_TEMP,0
0576 643
0008 0004 0576 644 .WORD 4,DVIS_DEVBUFSIZ ; Device buffer size
00000000'0000005C' 057A 645 .ADDRESS DEVBUFSIZ_TEMP,0
0582 646
000A 0004 0582 647 .WORD 4,DVIS_DEVDEPEND ; Device dependant data (1)
00000000'00000064' 0586 648 .ADDRESS DEVDEPEND,0
058E 649
001C 0004 058E 650 .WORD 4,DVIS_DEVDEPEND2 ; Device dependant data (2)
00000000'00000068' 0592 651 .ADDRESS DEVDEPEND2,0
059A 652
0020 0010 059A 653 .WORD 16,DVIS_DEVNAM ; Device name and length
0000006C'00000070' 059E 654 .ADDRESS DEVNAM,DEVNAMLEN
05A6 655
000C 0004 05A6 656 .WORD 4,DVIS_UNIT ; Device unit number
00000000'00000080' 05AA 657 .ADDRESS TERMUNIT,0
05B2 658
00000000 05B2 659 .LONG 0 ;END OF LIST
05B6 660
```

```
0586 662 .SBTTL READ WRITE DATA
00000000 663 .PSECT _RTPAD, LONG
0000 664
00000000 665 LOCAL PID: .LONG 0 ; no pid
0000000C 666 JPI_IOSB: .BLKL 2 ; iosb
000C 667
000C 668 GETJPI_ITMLST:
000C 669 .WORD 4, JPI$ASTLM
0000005C'00000040' 670 .LONG ASTLM, LEN
0000'0004' 671 .WORD 4, JPI$ASTCNT
00000050'00000044' 672 .LONG ASTCNT, LEN
0000'0004' 673 .WORD 4, JPI$BIOLM
00000050'00000048' 674 .LONG BIOLM, LEN
0000'0004' 675 .WORD 4, JPI$BIOCNT
00000050'0000004C' 676 .LONG BIOCNT, LEN
003C 677
003C 678 .LONG 0 ; end of list
0040 679
00000000 680 ASTLM: .LONG 0
00000000 681 ASTCNT: .LONG 0
00000000 682 BIOLM: .LONG 0
00000000 683 BIOCNT: .LONG 0
00000000 684 LEN: .LONG 0
0054 685
0054 686 :
0054 687 : Returned data area for $GETDVI
0054 688 :
0054 689
00000000 0054 690 DEVCLASS_TEMP: .LONG 0 ; Temp locations since getdvi wants longs
00000000 0058 691 DEVTYPE_TEMP: .LONG 0
00000000 005C 692 DEVBUFSIZ_TEMP: .LONG 0
0060 693
0060 694 CHAR_BLOCK:: : VMS characteristics
00000061 0060 695 DEVCLASS: .BLKB 1
00000062 0061 696 DEVTYPE: .BLKB 1
00000064 0062 697 DEVBUFSIZ: .BLKW 1
00000068 0064 698 DEVDEPEND: .BLKL 1
0000006C 0068 699 DEVDEPEND2: .BLKL 1
006C 700
00000000 006C 701 DEVNAMLEN:: .LONG 0 ;
0070 702
00000080 0070 703 DEVNAM:: .BLKB 16 ;
0080 704
00000000 0080 705 TERMUNIT:: .LONG 0 ;
0084 706
0084 707 TERMCHAR::
0000008C'00000084 0084 708 .LONG DIB$K_LENGTH+16, 1$ ; Term characteristics for RSX, etc.
00000110 008C 709 1$: .BLKB DIB$K_LENGTH+16
0110 710
0110 711 :
0110 712 : Message vectors for $PUTMSG
0110 713 :
0110 714
00000000 00000000'00000002 0110 715 DECNETER:: .LONG 2, REM$_NETERR, 0
011C 716
00000000 00000000'00000002 011C 717 NOTTERM: .LONG 2, REM$_NOTERM, 0
0128 718
```

RTPAD  
V04-000

- REMOTE TERMINAL PROGRAM  
READ WRITE DATA

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```
000001B0'00000001 00000000'00000003 0128 719 EXITMSG: .LONG 3,REMS_END,1,NODENAME
                                0138 720
                                0138 721 NOTVMS: .LONG 2,REMS_NOPROT,0
                                0144 722
                                0144 723 :
                                0144 724 : Channels assigned in INIT and used by other modules
                                0144 725 :
                                0144 726
00000000 0144 727 LINKCHAN:: .LONG 0 ; DECnet link channel
00000000 0148 728
014C 729 MAILCHAN:: .LONG 0 ; DECnet link mailbox channel
014C 730
00000000 014C 731 RDWRTCHAN:: .LONG 0 ; Terminal reads channel
0150 732 READCHAN::
00000000 0150 734 WRITECHAN:: .LONG 0 ; Terminal writes channel
0154 735
00000000 0154 736 CNTRLCHAN:: .LONG 0 ; Terminal ^C and ^Y enables
0158 737
00000000 0158 738 TERMMBXCHAN:: .LONG 0 ; Terminal Unsolicited data mailbox channel
015C 739
```



```
015C 741 :  
015C 742 : Cli interface storage  
015C 743 :  
44 4C 4F 00000164'010E0000' 015C 744 OLD_DESC: .ASCID /OLD/ ; /OLD qualifier  
0167 745 :  
47 4F 4C 0000016F'010E0000' 0167 746 LOG_DESC: .ASCID /LOG/ ; /LOG qualifier  
0172 747 :  
45 54 44 0000017A'010E0000' 0172 748 DTE_DESC: .ASCID /DTE/ ; /DTE qualifier  
017D 749 :  
45 44 4F 4E 00000185'010E0000' 017D 750 NODEDESC: .ASCID /NODE/ ; name of parameter  
0189 751 :  
0189 752 :  
0189 753 : Network names and descriptors  
0189 754 :  
0189 755 :  
0189 756 OBJ_DESC: ; Object type descriptor  
00000007' 0189 757 .LONG 20$-10$  
00000191' 018D 758 .LONG 10$  
0191 759 :  
22 3A 3A 0191 760 10$: .ASCII /::'/ ; FINAL FORMAT: node_name::'nn='  
00000003 0194 761 OBJ_C_PREFIX = -10$ ; Offset to object number  
22 3D 32 34 0194 762 .ASCII /42='/' ; 42 is TSA, 23 is old remote terminal  
0198 763 20$:  
0198 764 :  
0198 765 NODE_NAME_DESC: ; Returned CLI node name parameter  
02000000 0198 766 .LONG DSC$K_CLASS_Da<DSC$B_CLASS*8>  
00000000 019C 767 .LONG 0  
01A0 768 LOG_FILE_DESC: ; Returned /LOG= file spec  
02000000 01A0 769 .LONG DSC$K_CLASS_Da<DSC$B_CLASS*8>  
00000000 01A4 770 .LONG 0  
01A8 771 :  
01A8 772 CONNDESC: ; Network connection string  
02000000 01A8 773 .LONG DSC$K_CLASS_Da<DSC$B_CLASS*8>  
00000000 01AC 774 .LONG 0  
01B0 775 :  
00000040' 01B0 776 NODENAME:: .LONG 20$-10$ ; Translation of SYS$NODE held here  
000001B8' 01B4 777 .LONG 10$  
01B8 778 :  
000001F8 01B8 779 10$: .BLKB 64  
01F8 780 20$:  
01F8 781 :  
01F8 782 FINALPATH:: ; Final path descriptor  
02000000 01F8 783 .LONG DSC$K_CLASS_Da<DSC$B_CLASS*8>  
00000000 01FC 784 .LONG 0  
0200 785 :  
0200 786 FINALACS:: ; Final ACS descriptor  
02000000 0200 787 .LONG DSC$K_CLASS_Da<DSC$B_CLASS*8>  
00000000 0204 788 .LONG 0  
0208 789 :  
0208 790 PSTHRU_MSG: ; Saved PSTHRU message descriptor  
02000000 0208 791 .LONG DSC$K_CLASS_Da<DSC$B_CLASS*8>  
00000000 020C 792 .LONG 0  
0210 793 :  
0A 0D 00000218'010E0000' 0210 794 PSTHRU_CRLF: .ASCID <13><10> ; <CR><LF> for PSTHRU messages  
021A 795 :  
021A 796 :  
021A 797 : RMS storage
```

```
021A 798 ;  
021A 799 .ALIGN LONG  
021C 800  
021C 801 SYSINFAB:: $FAB FAC=GET,FNM=<SYS$INPUT> ; To open SYS$INPUT  
021C $FABDEF  
021C $DEFINI FAB,  
021C .SAVE LOCAL_BLOCK  
021C .NOCROSS  
021C .IIF DIF <> <GLOBAL>,.ENABLE SUPPRESSION  
021C .PSECT $ABS$,ABS  
0000 $GBLINI  
0000 .IF IDN <LOCAL> <GLOBAL>  
0000 .MACRO $DEF SYM,ALLOC,SIZ  
0000 .IIF NB,SYM,SYM:  
0000 .IIF NB,ALLOC, ALLOC SIZ  
0000 .ENDM $DEF  
0000 .MACRO $EQU SYM,VAL  
0000 SYM=VAL  
0000 .ENDM $EQU  
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK  
0000 SIZ...=1  
0000 .IIF NB,SIZ, SIZ...=SIZ  
0000 .IF NB,SYM  
0000 MOD'SEP'V 'SYM=BIT...  
0000 .IIF NB,SIZ, MOD'SEP'S 'SYM=SIZ  
0000 .IIF NB,MSK, MOD'SEP'M 'SYM=<<<1@SIZ...>-1>@BIT...>  
0000 .ENDC  
0000 BIT...=BIT...+SIZ...  
0000 .ENDM $VIELD1  
0000 .IIF  
0000 .IIF DIF <LOCAL> <LOCAL>,.ERROR ;ARG MUST BE 'GLOBAL','LOCAL',OR NULL  
0000 .MACRO $DEF SYM,ALLOC,SIZ  
0000 .IIF NB,SYM,SYM:  
0000 .IIF NB,ALLOC, ALLOC SIZ  
0000 .ENDM $DEF  
0000 .MACRO $EQU SYM,VAL  
0000 SYM=VAL  
0000 .ENDM $EQU  
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK  
0000 SIZ...=1  
0000 .IIF NB,SIZ, SIZ...=SIZ  
0000 .IF NB,SYM  
0000 MOD'SEP'V 'SYM=BIT...  
0000 .IIF NB,SIZ, MOD'SEP'S 'SYM=SIZ  
0000 .IIF NB,MSK, MOD'SEP'M 'SYM=<<<1@SIZ...>-1>@BIT...>  
0000 .ENDC  
0000 BIT...=BIT...+SIZ...  
0000 .ENDM $VIELD1  
0000 .ENDC  
00000000 0000 .=0  
00000003 0000 $EQU FAB$C_BID 3  
0000 FAB$C_BID=3  
00003FC0 0000 $EQU FAB$M_PPF_RAT 16320  
0000 FAB$M_PPF_RAT=16320
```

	0000			
	0000			
00004000	0000	SEQU	FABSM_PPF_IND 16384	
	0000		FABSM_PPF_IND=16384	
	0000			
	0000			
00000002	0000	SEQU	FABSM_MXV 2	
	0000		FABSM_MXV=2	
	0000			
	0000			
00000004	0000	SEQU	FABSM_SUP 4	
	0000		FABSM_SUP=4	
	0000			
	0000			
00000008	0000	SEQU	FABSM_TMP 8	
	0000		FABSM_TMP=8	
	0000			
	0000			
00000010	0000	SEQU	FABSM_TMD 16	
	0000		FABSM_TMD=16	
	0000			
	0000			
00000020	0000	SEQU	FABSM_DFW 32	
	0000		FABSM_DFW=32	
	0000			
	0000			
00000040	0000	SEQU	FABSM_SQO 64	
	0000		FABSM_SQO=64	
	0000			
	0000			
00000080	0000	SEQU	FABSM_RWO 128	
	0000		FABSM_RWO=128	
	0000			
	0000			
00000100	0000	SEQU	FABSM_POS 256	
	0000		FABSM_POS=256	
	0000			
	0000			
00000200	0000	SEQU	FABSM_WCK 512	
	0000		FABSM_WCK=512	
	0000			
	0000			
00000400	0000	SEQU	FABSM_NEF 1024	
	0000		FABSM_NEF=1024	
	0000			
	0000			
00000800	0000	SEQU	FABSM_RWC 2048	
	0000		FABSM_RWC=2048	
	0000			
	0000			
00001000	0000	SEQU	FABSM_DMO 4096	
	0000		FABSM_DMO=4096	
	0000			
	0000			
00002000	0000	SEQU	FABSM_SPL 8192	
	0000		FABSM_SPL=8192	
	0000			
	0000			
00004000	0000	SEQU	FABSM_SCF 16384	
	0000		FABSM_SCF=16384	
	0000			
	0000			
00008000	0000	SEQU	FABSM_DLT 32768	
	0000		FABSM_DLT=32768	
	0000			
	0000			
00010000	0000	SEQU	FABSM_NFS 65536	
	0000		FABSM_NFS=65536	
	0000			
	0000			
00020000	0000	SEQU	FABSM_UFO 131072	
	0000		FABSM_UFO=131072	
	0000			
	0000			
00040000	0000	SEQU	FABSM_PPF 262144	
	0000		FABSM_PPF=262144	

	0000		
	0000		
00080000	0000	SEQU	FABSM_INP 524288
	0000		FABSM_INP=524288
	0000		
	0000		
00100000	0000	SEQU	FABSM_CTG 1048576
	0000		FABSM_CTG=1048576
	0000		
	0000		
00200000	0000	SEQU	FABSM_CBT 2097152
	0000		FABSM_CBT=2097152
	0000		
	0000		
00800000	0000	SEQU	FABSM_RCK 8388608
	0000		FABSM_RCK=8388608
	0000		
	0000		
01000000	0000	SEQU	FABSM_NAM 16777216
	0000		FABSM_NAM=16777216
	0000		
	0000		
02000000	0000	SEQU	FABSM_CIF 33554432
	0000		FABSM_CIF=33554432
	0000		
	0000		
08000000	0000	SEQU	FABSM_ESC 134217728
	0000		FABSM_ESC=134217728
	0000		
	0000		
10000000	0000	SEQU	FABSM_TEF 268435456
	0000		FABSM_TEF=268435456
	0000		
	0000		
20000000	0000	SEQU	FABSM_OFP 536870912
	0000		FABSM_OFP=536870912
	0000		
	0000		
40000000	0000	SEQU	FABSM_KFO 1073741824
	0000		FABSM_KFU=1073741824
	0000		
	0000		
00000001	0000	SEQU	FABSM_PUT 1
	0000		FABSM_PUT=1
	0000		
	0000		
00000002	0000	SEQU	FABSM_GET 2
	0000		FABSM_GET=2
	0000		
	0000		
00000004	0000	SEQU	FABSM_DEL 4
	0000		FABSM_DEL=4
	0000		
	0000		
00000008	0000	SEQU	FABSM_UPD 8
	0000		FABSM_UPD=8
	0000		
	0000		
00000010	0000	SEQU	FABSM_TRN 16
	0000		FABSM_TRN=16
	0000		
	0000		
00000020	0000	SEQU	FABSM_BIO 32
	0000		FABSM_BIO=32
	0000		
	0000		
00000040	0000	SEQU	FABSM_BRO 64
	0000		FABSM_BRO=64
	0000		
	0000		
00000080	0000	SEQU	FABSM_EXE 128
	0000		FABSM_EXE=128
	0000		
	0000		
00000001	0000	SEQU	FABSM_SHRPUT 1
	0000		FABSM_SHRPUT=1



	0000			
	0000			
00000002	0000	\$EQU	FABSM_SHRGET	2
	0000		FABSM_SHRGET=2	
	0000			
	0000			
00000004	0000	\$EQU	FABSM_SHRDEL	4
	0000		FABSM_SHRDEL=4	
	0000			
	0000			
00000008	0000	\$EQU	FABSM_SHRUPD	8
	0000		FABSM_SHRUPD=8	
	0000			
	0000			
00000010	0000	\$EQU	FABSM_MSE	16
	0000		FABSM_MSE=16	
	0000			
	0000			
00000020	0000	\$EQU	FABSM_NIL	32
	0000		FABSM_NIL=32	
	0000			
	0000			
00000040	0000	\$EQU	FABSM_UP1	64
	0000		FABSM_UP1=64	
	0000			
	0000			
00000000	0000	\$EQU	FABSC_SEQ	0
	0000		FABSC_SEQ=0	
	0000			
	0000			
00000010	0000	\$EQU	FABSC_REL	16
	0000		FABSC_REL=16	
	0000			
	0000			
00000020	0000	\$EQU	FABSC_IDX	32
	0000		FABSC_IDX=32	
	0000			
	0000			
00000030	0000	\$EQU	FABSC_HSH	48
	0000		FABSC_HSH=48	
	0000			
	0000			
00000001	0000	\$EQU	FABSM_FTN	1
	0000		FABSM_FTN=1	
	0000			
	0000			
00000002	0000	\$EQU	FABSM_CR	2
	0000		FABSM_CR=2	
	0000			
	0000			
00000004	0000	\$EQU	FABSM_PRN	4
	0000		FABSM_PRN=4	
	0000			
	0000			
00000008	0000	\$EQU	FABSM_BLK	8
	0000		FABSM_BLK=8	
	0000			
	0000			
00000002	0000	\$EQU	FABSC_RFM_DFLT	2
	0000		FABSC_RFM_DFLT=2	
	0000			
	0000			
00000000	0000	\$EQU	FABSC_UDF	0
	0000		FABSC_UDF=0	
	0000			
	0000			
00000001	0000	\$EQU	FABSC_FIX	1
	0000		FABSC_FIX=1	
	0000			
	0000			
00000002	0000	\$EQU	FABSC_VAR	2
	0000		FABSC_VAR=2	
	0000			
	0000			
00000003	0000	\$EQU	FABSC_VFC	3
	0000		FABSC_VFC=3	

	0000			
	0000			
00000004	0000	SEQU	FABSC_STM	4
	0000		FABSC_STM=4	
	0000			
	0000			
00000005	0000	SEQU	FABSC_STMLF	5
	0000		FABSC_STMLF=5	
	0000			
	0000			
00000006	0000	SEQU	FABSC_STMCR	6
	0000		FABSC_STMCR=6	
	0000			
	0000			
00000006	0000	SEQU	FABSC_MAXRFM	6
	0000		FABSC_MAXRFM=6	
	0000			
	0000			
00000001	0000	SEQU	FABSM_RU	1
	0000		FABSM_RU=1	
	0000			
	0000			
00000002	0000	SEQU	FABSM_AI	2
	0000		FABSM_AI=2	
	0000			
	0000			
00000004	0000	SEQU	FABSM_BI	4
	0000		FABSM_BI=4	
	0000			
	0000			
00000050	0000	SEQU	FABSK_BLN	80
	0000		FABSK_BLN=80	
	0000			
	0000			
00000050	0000	SEQU	FABSC_BLN	80
	0000		FABSC_BLN=80	
	0000			
	0000			
00000050	0000	SEQU	FABSS_FABDEF	80
	0000		FABSS_FABDEF=80	
	0000			
	0000			
00000000	0000	SEQU	FABSB_BID	0
	0000		FABSB_BID=0	
	0000			
	0000			
00000001	0000	SEQU	FABSB_BLN	1
	0000		FABSB_BLN=1	
	0000			
	0000			
00000002	0000	SEQU	FABSR_IFI_OVERLAY	2
	0000		FABSR_IFI_OVERLAY=2	
	0000			
	0000			
00000002	0000	SEQU	FABSW_IFI	2
	0000		FABSW_IFI=2	
	0000			
	0000			
00000002	0000	SEQU	FABSR_IFI_BITS	2
	0000		FABSR_IFI_BITS=2	
	0000			
	0000			
00000008	0000	SEQU	FABSS_PPF_RAT	8
	0000		FABSS_PPF_RAT=8	
	0000			
	0000			
00000006	0000	SEQU	FABSV_PPF_RAT	6
	0000		FABSV_PPF_RAT=6	
	0000			
	0000			
0000000E	0000	SEQU	FABSV_PPF_IND	14
	0000		FABSV_PPF_IND=14	
	0000			
	0000			
00000004	0000	SEQU	FABSR_FOP_OVERLAY	4
	0000		FABSR_FOP_OVERLAY=4	

00000004	0000	SEQU	FABSL_FOP	4
	0000		FABSL_FOP=4	
00000004	0000	SEQU	FABSR_FOP_BITS	4
	0000		FABSR_FOP_BITS=4	
00000001	0000	SEQU	FABSV_MXV	1
	0000		FABSV_MXV=1	
00000002	0000	SEQU	FABSV_SUP	2
	0000		FABSV_SUP=2	
00000003	0000	SEQU	FABSV_TMP	3
	0000		FABSV_TMP=3	
00000004	0000	SEQU	FABSV_TMD	4
	0000		FABSV_TMD=4	
00000005	0000	SEQU	FABSV_DFW	5
	0000		FABSV_DFW=5	
00000006	0000	SEQU	FABSV_SQO	6
	0000		FABSV_SQO=6	
00000007	0000	SEQU	FABSV_RWO	7
	0000		FABSV_RWO=7	
00000008	0000	SEQU	FABSV_POS	8
	0000		FABSV_POS=8	
00000009	0000	SEQU	FABSV_WCK	9
	0000		FABSV_WCK=9	
0000000A	0000	SEQU	FABSV_NEF	10
	0000		FABSV_NEF=10	
0000000B	0000	SEQU	FABSV_RWC	11
	0000		FABSV_RWC=11	
0000000C	0000	SEQU	FABSV_DMO	12
	0000		FABSV_DMO=12	
0000000D	0000	SEQU	FABSV_SPL	13
	0000		FABSV_SPL=13	
0000000E	0000	SEQU	FABSV_SCF	14
	0000		FABSV_SCF=14	
0000000F	0000	SEQU	FABSV_DLT	15
	0000		FABSV_DLT=15	
00000010	0000	SEQU	FABSV_NFS	16
	0000		FABSV_NFS=16	
00000011	0000	SEQU	FABSV_UFO	17
	0000		FABSV_UFO=17	

	0000			
00000012	0000	SEQU	FABSV_PPF	18
	0000		FABSV_PPF=18	
	0000			
00000013	0000	SEQU	FABSV_INP	19
	0000		FABSV_INP=19	
	0000			
00000014	0000	SEQU	FABSV_CTG	20
	0000		FABSV_CTG=20	
	0000			
00000015	0000	SEQU	FABSV_CBT	21
	0000		FABSV_CBT=21	
	0000			
00000017	0000	SEQU	FABSV_RCK	23
	0000		FABSV_RCK=23	
	0000			
00000018	0000	SEQU	FABSV_NAM	24
	0000		FABSV_NAM=24	
	0000			
00000019	0000	SEQU	FABSV_CIF	25
	0000		FABSV_CIF=25	
	0000			
0000001B	0000	SEQU	FABSV_ESC	27
	0000		FABSV_ESC=27	
	0000			
0000001C	0000	SEQU	FABSV_TEF	28
	0000		FABSV_TEF=28	
	0000			
0000001D	0000	SEQU	FABSV_OFP	29
	0000		FABSV_OFP=29	
	0000			
0000001E	0000	SEQU	FABSV_KFO	30
	0000		FABSV_KFO=30	
	0000			
00000008	0000	SEQU	FABSL_STS	8
	0000		FABSL_STS=8	
	0000			
0000000C	0000	SEQU	FABSL_STV	12
	0000		FABSL_STV=12	
	0000			
00000010	0000	SEQU	FABSL_ALQ	16
	0000		FABSL_ALQ=16	
	0000			
00000014	0000	SEQU	FABSW_DEQ	20
	0000		FABSW_DEQ=20	
	0000			
00000016	0000	SEQU	FABSR_FAC_OVERLAY	22
	0000		FABSR_FAC_OVERLAY=22	
	0000			
00000016	0000	SEQU	FABSB_FAC	22
	0000		FABSB_FAC=22	
	0000			
00000016	0000	SEQU	FABSR_FAC_BITS	22
	0000		FABSR_FAC_BITS=22	
	0000			
00000000	0000	SEQU	FABSV_PUT	0
	0000		FABSV_PUT=0	



	0000			
	0000			
00000001	0000	SEQU	FABSV_GET	1
	0000		FABSV_GET=1	
	0000			
	0000			
00000002	0000	SEQU	FABSV_DEL	2
	0000		FABSV_DEL=2	
	0000			
	0000			
00000003	0000	SEQU	FABSV_UPD	3
	0000		FABSV_UPD=3	
	0000			
	0000			
00000004	0000	SEQU	FABSV_TRN	4
	0000		FABSV_TRN=4	
	0000			
	0000			
00000005	0000	SEQU	FABSV_BIO	5
	0000		FABSV_BIO=5	
	0000			
	0000			
00000006	0000	SEQU	FABSV_BRO	6
	0000		FABSV_BRO=6	
	0000			
	0000			
00000007	0000	SEQU	FABSV_EXE	7
	0000		FABSV_EXE=7	
	0000			
	0000			
00000017	0000	SEQU	FABSR_SHR_OVERLAY	23
	0000		FABSR_SHR_OVERLAY=23	
	0000			
	0000			
00000017	0000	SEQU	FABSB_SHR	23
	0000		FABSB_SHR=23	
	0000			
	0000			
00000017	0000	SEQU	FABSR_SHR_BITS	23
	0000		FABSR_SHR_BITS=23	
	0000			
	0000			
00000000	0000	SEQU	FABSV_SHRPUT	0
	0000		FABSV_SHRPUT=0	
	0000			
	0000			
00000001	0000	SEQU	FABSV_SHRGET	1
	0000		FABSV_SHRGET=1	
	0000			
	0000			
00000002	0000	SEQU	FABSV_SHRDEL	2
	0000		FABSV_SHRDEL=2	
	0000			
	0000			
00000003	0000	SEQU	FABSV_SHRUPD	3
	0000		FABSV_SHRUPD=3	
	0000			
	0000			
00000004	0000	SEQU	FABSV_MSE	4
	0000		FABSV_MSE=4	
	0000			
	0000			
00000005	0000	SEQU	FABSV_NIL	5
	0000		FABSV_NIL=5	
	0000			
	0000			
00000006	0000	SEQU	FABSV_UPI	6
	0000		FABSV_UPI=6	
	0000			
	0000			
00000018	0000	SEQU	FABSL_CTX	24
	0000		FABSL_CTX=24	
	0000			
	0000			
0000001C	0000	SEQU	FABSB_RTV	28
	0000		FABSB_RTV=28	

	0000			
	0000	\$EQU	FABSR_ORG_OVERLAY	29
0000001D	0000		FABSR_ORG_OVERLAY=29	
	0000			
	0000	\$EQU	FABSB_ORG	29
0000001D	0000		FABSB_ORG=29	
	0000			
	0000	\$EQU	FABSR_ORG_BITS	29
0000001D	0000		FABSR_ORG_BITS=29	
	0000			
	0000	\$EQU	FABSS_ORG	4
00000004	0000		FABSS_ORG=4	
	0000			
	0000	\$EQU	FABSV_ORG	4
00000004	0000		FABSV_ORG=4	
	0000			
	0000	\$EQU	FABSR_RAT_OVERLAY	30
0000001E	0000		FABSR_RAT_OVERLAY=30	
	0000			
	0000	\$EQU	FABSB_RAT	30
0000001E	0000		FABSB_RAT=30	
	0000			
	0000	\$EQU	FABSR_RAT_BITS	30
0000001E	0000		FABSR_RAT_BITS=30	
	0000			
	0000	\$EQU	FABSV_FTN	0
00000000	0000		FABSV_FTN=0	
	0000			
	0000	\$EQU	FABSV_CR	1
00000001	0000		FABSV_CR=1	
	0000			
	0000	\$EQU	FABSV_PRN	2
00000002	0000		FABSV_PRN=2	
	0000			
	0000	\$EQU	FABSV_BLK	3
00000003	0000		FABSV_BLK=3	
	0000			
	0000	\$EQU	FABSB_RFM	31
0000001F	0000		FABSB_RFM=31	
	0000			
	0000	\$EQU	FABSL_JNL	32
00000020	0000		FABSL_JNL=32	
	0000			
	0000	\$EQU	FABSL_XAB	36
00000024	0000		FABSL_XAB=36	
	0000			
	0000	\$EQU	FABSL_NAM	40
00000028	0000		FABSL_NAM=40	
	0000			
	0000	\$EQU	FABSL_FNA	44
0000002C	0000		FABSL_FNA=44	
	0000			
	0000	\$EQU	FABSL_DNA	48
00000030	0000		FABSL_DNA=48	
	0000			
	0000	\$EQU	FABSB_FNS	52
00000034	0000		FABSB_FNS=52	

	0000			
00000035	0000	SEQU	FAB\$B_DNS	53
	0000		FAB\$B_DNS=53	
	0000			
00000036	0000	SEQU	FAB\$W_MRS	54
	0000		FAB\$W_MRS=54	
	0000			
00000038	0000	SEQU	FAB\$L_MRN	56
	0000		FAB\$L_MRN=56	
	0000			
0000003C	0000	SEQU	FAB\$W_BLS	60
	0000		FAB\$W_BLS=60	
	0000			
0000003E	0000	SEQU	FAB\$B_BKS	62
	0000		FAB\$B_BKS=62	
	0000			
0000003F	0000	SEQU	FAB\$B_FSZ	63
	0000		FAB\$B_FSZ=63	
	0000			
00000040	0000	SEQU	FAB\$L_DEV	64
	0000		FAB\$L_DEV=64	
	0000			
00000044	0000	SEQU	FAB\$L_SDC	68
	0000		FAB\$L_SDC=68	
	0000			
00000048	0000	SEQU	FAB\$W_GBC	72
	0000		FAB\$W_GBC=72	
	0000			
0000004A	0000	SEQU	FAB\$R_ACMODES_OVERLAY	74
	0000		FAB\$R_ACMODES_OVERLAY=74	
	0000			
0000004A	0000	SEQU	FAB\$B_ACMODES	74
	0000		FAB\$B_ACMODES=74	
	0000			
0000004A	0000	SEQU	FAB\$R_ACMODES_BITS	74
	0000		FAB\$R_ACMODES_BITS=74	
	0000			
00000002	0000	SEQU	FAB\$S_LNM_MODE	2
	0000		FAB\$S_LNM_MODE=2	
	0000			
00000000	0000	SEQU	FAB\$V_LNM_MODE	0
	0000		FAB\$V_LNM_MODE=0	
	0000			
00000002	0000	SEQU	FAB\$S_CHAN_MODE	2
	0000		FAB\$S_CHAN_MODE=2	
	0000			
00000002	0000	SEQU	FAB\$V_CHAN_MODE	2
	0000		FAB\$V_CHAN_MODE=2	
	0000			
00000002	0000	SEQU	FAB\$S_FILE_MODE	2
	0000		FAB\$S_FILE_MODE=2	
	0000			
00000004	0000	SEQU	FAB\$V_FILE_MODE	4
	0000		FAB\$V_FILE_MODE=4	
	0000			
0000004B	0000	SEQU	FAB\$R_RCF_OVERLAY	75
	0000		FAB\$R_RCF_OVERLAY=75	

```

0000    0000    SEQU    FAB$B_RCF      75
0000C04B 0000    FAB$B_RCF=75
0000    0000    SEQU    FAB$R_RCF_BITS 75
0000004B 0000    FAB$R_RCF_BITS=75
0000    0000    SEQU    FAB$V_RU       0
00000000 0000    FAB$V_RU=0
0000    0000    SEQU    FAB$V_AI       1
00000001 0000    FAB$V_AI=1
0000    0000    SEQU    FAB$V_BI       2
00000002 0000    FAB$V_BI=2
0000    0000    $DEFEND FAB,,DEF
0000    0000    .MACRO   $FABDEF A
0000    0000    .ENDM    $FABDEF
0000    0000    .IIF     DIF <> <GLOBAL>,.DISABLE          SUPPRESSION
0000    0000    .CROSS
0000021C 0000    .RESTORE
0000    021C
0000    021C
0000    021C    $$R_TABINIT      FAB$C_BID,FAB$C_BLN
0000021C 021C    .IIF HE .&3, .print ;%MACRO-I=GENINFO, Generated INFO: RMS BLOCK NOT LONGWORD ALIGNED
0000    03    021C    $$TAB=.
0000    50    021C    .BYTE FAB$C_BID
0000026C 021D    .BYTE FAB$C_BLN
0000026C 021E    .BLKB FAB$C_BLN-2
0000    026C    $$TABEND=.
0000    026C
00000000 026C    $$R_VBFSET      FAB,<>
0000    026C    $$TMP=0
0000    026C    .IRP X,<>
0000    026C    .IF DF FAB$V_'X'
0000    026C        $$TMP=$$.TMP!<1&FAB$V_'X'>
0000    026C    .IFF
0000    026C        .ERROR           ; UNDEFINED BIT VALUE CODE: X;
0000    026C    .ENDC
0000    026C    .ENDR
00000220 026C    .=$$TAB+FAB$L_FOP
00000000 0220    .ADDRESS      $$TMP
0000022C 0224    .=$$TAB+FAB$L_ALQ
00000000 022C    .ADDRESS      0
0000    0000 0230    .WORD      0
00000000 0232    $$R_VBFSET      FAB,<GET>
0000    0232    $$TMP=0
0000    0232    .IRP X,<GET>
0000    0232    .IF DF FAB$V_'X'
0000    0232        $$TMP=$$.TMP!<1&FAB$V_'X'>
0000    0232    .IFF
0000    0232        .ERROR           ; UNDEFINED BIT VALUE CODE: X;
0000    0232    .ENDC
0000    0232    .ENDR
0000    0232    .IF DF FAB$V_GET

```



```
00000002 0232          $$ .TMP=$$.TMP!<1@FAB$V_GET>
          0232          .IFF
          0232          .ERROR          ; UNDEFINED BIT VALUE CODE: GET;
          0232          .ENDC
          0232
02         0232          .BYTE  $$ .TMP
00000000 0232          $$R_VBFSET  FAB,<>
          0232          .IRP X,<>
          0232          .IF DF FAB$V 'X
          0232          $$ .TMP=$$.TMP!<1@FAB$V_'X>
          0232          .IFF
          0232          .ERROR          ; UNDEFINED BIT VALUE CODE: X;
          0232          .ENDC
          0232          .ENDR
          0232
00         0232          .BYTE  $$ .TMP
00000000 0232          .ADDRESS  0
00         0232          .BYTE  0
          0232          .IF DF FAB$C_SEQ
          0232          .BYTE  FAB$C_SEQ
          0232          .IFF
          0232          .ERROR          ; UNDEFINED VALUE FOR FIELD : SEQ;
          0232          .ENDC
          0232          .ENDR
          0232
00000000 0232          $$R_VBFSET  FAB,<>
          0232          .IRP X,<>
          0232          .IF DF FAB$V 'X
          0232          $$ .TMP=$$.TMP!<1@FAB$V_'X>
          0232          .IFF
          0232          .ERROR          ; UNDEFINED BIT VALUE CODE: X;
          0232          .ENDC
          0232          .ENDR
          0232
00         0232          .BYTE  $$ .TMP
02         0232          .IF DF FAB$C_VAR
          0232          .BYTE  FAB$C_VAR
          0232          .IFF
          0232          .ERROR          ; UNDEFINED VALUE FOR FIELD : VAR;
          0232          .ENDC
          0232          .ENDR
          0232
00000000 0232          .ADDRESS  0
00000000 0240          .ADDRESS  00
00000000 0244          .ADDRESS  00
00000000 0248          .ADDRESS  00
00000000 024C          .ADDRESS  0
00         0250          .BYTE  0
00         0251          .BYTE  0
0000      0252          .WORD  0
00000000 0254          .ADDRESS  0
0000      0258          .WORD  0
00         025A          .BYTE  0
00         025B          .BYTE  0
00000264 025C          .=$$.TAB+FAB$W_GBC
0000      0264          .WORD  0
```

```
00 0266 .BYTE <<0@FAB$V_LNM_MODE> + <0@FAB$V_CHAN_MODE> + -
0267 <0@FAB$V_FILE_MODE>>
0267 .IIF NE 8-8 .ERROR ; INVALID BYTE SIZE
0267 .IF NB <SYS$INPUT>
0267 .SAVE
00000000 .PSECT $RMSNAM
00000000 0000 $$TMPX=
54 55 50 4E 49 24 53 59 53 0000 .ASCII %SYS$INPUT%
00000009 0009 $$TMPX1=-$$TMPX
00000248 0267 .RESTORE
00000000 0248 .=$$TAB+FAB$L_FNA
00000250 024C .ADDRESS $$TMPX
09 0250 .=$$TAB+FAB$B_FNS
0251 .BYTE $$TMPX1
0251 .ENDC
0251 .IF NB <>
0251 .SAVE
0251 .PSECT $RMSNAM
0251 $$TMPX=
0251 .ASCII %
0251 $$TMPX1=-$$TMPX
0251 .RESTORE
0251 .=$$TAB+FAB$L_DNA
0251 .ADDRESS $$TMPX
0251 .=$$TAB+FAB$B_DNS
0251 .BYTE $$TMPX1
0251 .ENDC
0000026C 0251 .=$$TABEND
026C
026C 802
026C 803 SYSINRAB:: $RAB FAB=SYSINFAB
026C $RABDEF
026C $DEFINI RAB,
026C .SAVE LOCAL_BLOCK
026C .NOCROSS
026C .IIF DIF <> <GLOBAL>,.ENABLE SUPPRESSION
026C .PSECT $AB$$,ABS
0000 $GBLINI
0000 .IF IDN <LOCAL> <GLOBAL>
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM::
0000 .IIF NB,ALLOC, ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ, SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V 'SYM==BIT...
0000 .IIF NB,SIZ, MOD'SEP'S 'SYM==SIZ
0000 .IIF NB,MSK, MOD'SEP'M 'SYM==<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .IIF
```

```
0000 .IIF DIF <LOCAL> <LOCAL>, ERROR ;ARG MUST BE 'GLOBAL','LOCAL',OR NULL
0000 .MACRO $DEF SYM,ALLOC,SIZ
0000 .IIF NB,SYM,SYM:
0000 .IIF NB,ALLCC, ALLOC SIZ
0000 .ENDM $DEF
0000 .MACRO $EQU SYM,VAL
0000 SYM=VAL
0000 .ENDM $EQU
0000 .MACRO $VIELD1 MOD,SEP,SYM,SIZ,MSK
0000 SIZ...=1
0000 .IIF NB,SIZ, SIZ...=SIZ
0000 .IF NB,SYM
0000 MOD'SEP'V'SYM=BIT...
0000 .IIF NB,SIZ, MOD'SEP'S'SYM=SIZ
0000 .IIF NB,MSK, MOD'SEP'M'SYM=<<<1@SIZ...>-1>@BIT...>
0000 .ENDC
0000 BIT...=BIT...+SIZ...
0000 .ENDM $VIELD1
0000 .ENDC
00000000 0000 .=0
00000001 0000 $EQU RAB$C_BID 1
00000001 0000 RAB$C_BID=1
00003FC0 0000 $EQU RAB$M_PPF_RAT 16320
00003FC0 0000 RAB$M_PPF_RAT=16320
00004000 0000 $EQU RAB$M_PPF_IND 16384
00004000 0000 RAB$M_PPF_IND=16384
00000001 0000 $EQU RAB$M_ASY 1
00000001 0000 RAB$M_ASY=1
00000002 0000 $EQU RAB$M_TPT 2
00000002 0000 RAB$M_TPT=2
00000004 0000 $EQU RAB$M_REA 4
00000004 0000 RAB$M_REA=4
00000008 0000 $EQU RAB$M_RRL 8
00000008 0000 RAB$M_RRL=8
00000010 0000 $EQU RAB$M_UIF 16
00000010 0000 RAB$M_UIF=16
00000020 0000 $EQU RAB$M_MAS 32
00000020 0000 RAB$M_MAS=32
00000040 0000 $EQU RAB$M_FDL 64
00000040 0000 RAB$M_FDL=64
00000080 0000 $EQU RAB$M_HSH 128
00000080 0000 RAB$M_HSH=128
00000100 0000 $EQU RAB$M_EOF 256
00000100 0000 RAB$M_EOF=256
```

	0000			
	0000	SEQU	RABSM_RAH	512
00000200	0000		RABSM_RAH=512	
	0000			
	0000	SEQU	RABSM_WBH	1024
00000400	0000		RABSM_WBH=1024	
	0000			
	0000	SEQU	RABSM_BIO	2048
00000800	0000		RABSM_BIO=2048	
	0000			
	0000	SEQU	RABSM_LV2	4096
00001000	0000		RABSM_LV2=4096	
	0000			
	0000	SEQU	RABSM_LOA	8192
00002000	0000		RABSM_LOA=8192	
	0000			
	0000	SEQU	RABSM_LIM	16384
00004000	0000		RABSM_LIM=16384	
	0000			
	0000	SEQU	RABSM_LOC	65536
00010000	0000		RABSM_LOC=65536	
	0000			
	0000	SEQU	RABSM_WAT	131072
00020000	0000		RABSM_WAT=131072	
	0000			
	0000	SEQU	RABSM_ULK	262144
00040000	0000		RABSM_ULK=262144	
	0000			
	0000	SEQU	RABSM_RLK	524288
00080000	0000		RABSM_RLK=524288	
	0000			
	0000	SEQU	RABSM_NLK	1048576
00100000	0000		RABSM_NLK=1048576	
	0000			
	0000	SEQU	RABSM_KGE	2097152
00200000	0000		RABSM_KGE=2097152	
	0000			
	0000	SEQU	RABSM_KGT	4194304
00400000	0000		RABSM_KGT=4194304	
	0000			
	0000	SEQU	RABSM_NXR	8388608
00800000	0000		RABSM_NXR=8388608	
	0000			
	0000	SEQU	RABSM_RNE	16777216
01000000	0000		RABSM_RNE=16777216	
	0000			
	0000	SEQU	RABSM_TMO	33554432
02000000	0000		RABSM_TMO=33554432	
	0000			
	0000	SEQU	RABSM_CVT	67108864
04000000	0000		RABSM_CVT=67108864	
	0000			
	0000	SEQU	RABSM_RNF	134217728
08000000	0000		RABSM_RNF=134217728	
	0000			
	0000	SEQU	RABSM_ETO	268435456
10000000	0000		RABSM_ETO=268435456	

	0000			
	0000	SEQU	RABSM_PTA	536870912
20000000	0000		RABSM_PTA=536870912	
	0000			
	0000	SEQU	RABSM_PMT	1073741824
40000000	0000		RABSM_PMT=1073741824	
	0000			
	0000	SEQU	RABSM_CCO	-2147483648
80000000	0000		RABSM_CCO=-2147483648	
	0000			
	0000	SEQU	RABSC_SEQ	0
00000000	0000		RABSC_SEQ=0	
	0000			
	0000	SEQU	RABSC_KEY	1
00000001	0000		RABSC_KEY=1	
	0000			
	0000	SEQU	RABSC_RFA	2
00000002	0000		RABSC_RFA=2	
	0000			
	0000	SEQU	RABSC_STM	3
00000003	0000		RABSC_STM=3	
	0000			
	0000	SEQU	RABSK_BLN	68
00000044	0000		RABSK_BLN=68	
	0000			
	0000	SEQU	RABSC_BLN	68
00000044	0000		RABSC_BLN=68	
	0000			
	0000	SEQU	RABSS_RABDEF	68
00000044	0000		RABSS_RABDEF=68	
	0000			
	0000	SEQU	RABSB_BID	0
00000000	0000		RABSB_BID=0	
	0000			
	0000	SEQU	RABSB_BLN	1
00000001	0000		RABSB_BLN=1	
	0000			
	0000	SEQU	RABSR_ISI_OVERLAY	2
00000002	0000		RABSR_ISI_OVERLAY=2	
	0000			
	0000	SEQU	RABSW_ISI	2
00000002	0000		RABSW_ISI=2	
	0000			
	0000	SEQU	RABSR_ISI_BITS	2
00000002	0000		RABSR_ISI_BITS=2	
	0000			
	0000	SEQU	RABSS_PPF_RAT	8
00000008	0000		RABSS_PPF_RAT=8	
	0000			
	0000	SEQU	RABSV_PPF_RAT	6
00000006	0000		RABSV_PPF_RAT=6	
	0000			
	0000	SEQU	RABSV_PPF_IND	14
0000000E	0000		RABSV_PPF_IND=14	
	0000			
	0000	SEQU	RABSR_ROP_OVERLAY	4
00000004	0000		RABSR_ROP_OVERLAY=4	



	0000			
	0000			
00000004	0000	SEQU	RABSL_ROP	4
	0000		RABSL_ROP=4	
	0000			
	0000			
00000004	0000	SEQU	RABSR_ROP_BITSO	4
	0000		RABSR_ROP_BITSO=4	
	0000			
	0000			
00000000	0000	SEQU	RABSV_ASY	0
	0000		RABSV_ASY=0	
	0000			
	0000			
00000001	0000	SEQU	RABSV_TPT	1
	0000		RABSV_TPT=1	
	0000			
	0000			
00000002	0000	SEQU	RABSV_REA	2
	0000		RABSV_REA=2	
	0000			
	0000			
00000003	0000	SEQU	RABSV_RRL	3
	0000		RABSV_RRL=3	
	0000			
	0000			
00000004	0000	SEQU	RABSV_UIF	4
	0000		RABSV_UIF=4	
	0000			
	0000			
00000005	0000	SEQU	RABSV_MAS	5
	0000		RABSV_MAS=5	
	0000			
	0000			
00000006	0000	SEQU	RABSV_FDL	6
	0000		RABSV_FDL=6	
	0000			
	0000			
00000007	0000	SEQU	RABSV_HSH	7
	0000		RABSV_HSH=7	
	0000			
	0000			
00000008	0000	SEQU	RABSV_EOF	8
	0000		RABSV_EOF=8	
	0000			
	0000			
00000009	0000	SEQU	RABSV_RAH	9
	0000		RABSV_RAH=9	
	0000			
	0000			
0000000A	0000	SEQU	RABSV_WBH	10
	0000		RABSV_WBH=10	
	0000			
	0000			
0000000B	0000	SEQU	RABSV_BIO	11
	0000		RABSV_BIO=11	
	0000			
	0000			
0000000C	0000	SEQU	RABSV_LV2	12
	0000		RABSV_LV2=12	
	0000			
	0000			
0000000D	0000	SEQU	RABSV_LOA	13
	0000		RABSV_LOA=13	
	0000			
	0000			
0000000E	0000	SEQU	RABSV_LIM	14
	0000		RABSV_LIM=14	
	0000			
	0000			
00000010	0000	SEQU	RABSV_LOC	16
	0000		RABSV_LOC=16	
	0000			
	0000			
00000011	0000	SEQU	RABSV_WAT	17
	0000		RABSV_WAT=17	

00000012	0000	SEQU	RABSV_ULK	18
	0000		RABSV_ULK=18	
	0000			
00000013	0000	SEQU	RABSV_RLK	19
	0000		RABSV_RLK=19	
	0000			
00000014	0000	SEQU	RABSV_NLK	20
	0000		RABSV_NLK=20	
	0000			
00000015	0000	SEQU	RABSV_KGE	21
	0000		RABSV_KGE=21	
	0000			
00000016	0000	SEQU	RABSV_KGT	22
	0000		RABSV_KGT=22	
	0000			
00000017	0000	SEQU	RABSV_NXR	23
	0000		RABSV_NXR=23	
	0000			
00000018	0000	SEQU	RABSV_RNE	24
	0000		RABSV_RNE=24	
	0000			
00000019	0000	SEQU	RABSV_TMO	25
	0000		RABSV_TMO=25	
	0000			
0000001A	0000	SEQU	RABSV_CVT	26
	0000		RABSV_CVT=26	
	0000			
0000001B	0000	SEQU	RABSV_RNF	27
	0000		RABSV_RNF=27	
	0000			
0000001C	0000	SEQU	RABSV_ETO	28
	0000		RABSV_ETO=28	
	0000			
0000001D	0000	SEQU	RABSV_PTA	29
	0000		RABSV_PTA=29	
	0000			
0000001E	0000	SEQU	RABSV_PMT	30
	0000		RABSV_PMT=30	
	0000			
0000001F	0000	SEQU	RABSV_CCO	31
	0000		RABSV_CCO=31	
	0000			
00000004	0000	SEQU	RABSR_ROP_FIELDS	4
	0000		RABSR_ROP_FIELDS=4	
	0000			
00000005	0000	SEQU	RABSB_ROP1	5
	0000		RABSB_ROP1=5	
	0000			
00000006	0000	SEQU	RABSB_ROP2	6
	0000		RABSB_ROP2=6	
	0000			
00000007	0000	SEQU	RABSB_ROP3	7
	0000		RABSB_ROP3=7	
	0000			
00000008	0000	SEQU	RABSL_STS	8
	0000		RABSL_STS=8	

0000000C	0000	SEQU	RABSR_STV_OVERLAY	12
	0000		RABSR_STV_OVERLAY=12	
	0000			
0000000C	0000	SEQU	RABSL_STV	12
	0000		RABSL_STV=12	
	0000			
0000000C	0000	SEQU	RABSR_STV_FIELDS	12
	0000		RABSR_STV_FIELDS=12	
	0000			
0000000C	0000	SEQU	RABSW_STV0	12
	0000		RABSW_STV0=12	
	0000			
0000000E	0000	SEQU	RABSW_STV2	14
	0000		RABSW_STV2=14	
	0000			
00000010	0000	SEQU	RABSR_RFA_OVERLAY	16
	0000		RABSR_RFA_OVERLAY=16	
	0000			
00000006	0000	SEQU	RABSS_RFA	6
	0000		RABSS_RFA=6	
	0000			
00000010	0000	SEQU	RABSW_RFA	16
	0000		RABSW_RFA=16	
	0000			
00000010	0000	SEQU	RABSR_RFA_FIELDS	16
	0000		RABSR_RFA_FIELDS=16	
	0000			
00000010	0000	SEQU	RABSL_RFA0	16
	0000		RABSL_RFA0=16	
	0000			
00000014	0000	SEQU	RABSW_RFA4	20
	0000		RABSW_RFA4=20	
	0000			
00000018	0000	SEQU	RABSL_CTX	24
	0000		RABSL_CTX=24	
	0000			
0000001E	0000	SEQU	RABSB_RAC	30
	0000		RABSB_RAC=30	
	0000			
0000001F	0000	SEQU	RABSB_TMO	31
	0000		RABSB_TMO=31	
	0000			
00000020	0000	SEQU	RABSW_USZ	32
	0000		RABSW_USZ=32	
	0000			
00000022	0000	SEQU	RABSW_RSZ	34
	0000		RABSW_RSZ=34	
	0000			
00000024	0000	SEQU	RABSL_UBF	36
	0000		RABSL_UBF=36	
	0000			
00000028	0000	SEQU	RABSL_RBF	40
	0000		RABSL_RBF=40	
	0000			
0000002C	0000	SEQU	RABSL_RHB	44
	0000		RABSL_RHB=44	

```
00000030 0000 $EQU RABSR_KBF_OVERLAY 48
00000030 0000 RABSR_KBF_OVERLAY=48
00000030 0000 $EQU RABSL_KBF 48
00000030 0000 RABSL_KBF=48
00000030 0000 $EQU RABSL_PBF 48
00000030 0000 RABSL_PBF=48
00000034 0000 $EQU RABSR_KSZ_OVERLAY 52
00000034 0000 RABSR_KSZ_OVERLAY=52
00000034 0000 $EQU RABSB_KSZ 52
00000034 0000 RABSB_KSZ=52
00000034 0000 $EQU RABSB_PSZ 52
00000034 0000 RABSB_PSZ=52
00000035 0000 $EQU RABSB_KRF 53
00000035 0000 RABSB_KRF=53
00000036 0000 $EQU RABSB_MBF 54
00000036 0000 RABSB_MBF=54
00000037 0000 $EQU RABSB_MBC 55
00000037 0000 RABSB_MBC=55
00000038 0000 $EQU RABSR_BKT_OVERLAY 56
00000038 0000 RABSR_BKT_OVERLAY=56
00000038 0000 $EQU RABSL_BKT 56
00000038 0000 RABSL_BKT=56
00000038 0000 $EQU RABSL_DCT 56
00000038 0000 RABSL_DCT=56
0000003C 0000 $EQU RABSL_FAB 60
0000003C 0000 RABSL_FAB=60
00000040 0000 $EQU RABSL_XAB 64
00000040 0000 RABSL_XAB=64
0000026C 0000 $DEFEND RAB,,DEF
0000026C 0000 .MACRO $RABDEF A
0000026C 0000 .ENDM $RABDEF
0000026C 0000 .IIF DIF <> <GLOBAL>,.DISABLE SUPPRESSION
0000026C 0000 .CROSS
0000026C 0000 .RESTORE
0000026C 026C $$R TABINIT RABSC_BID,RABSC_BLN
0000026C 026C .IIF NE .&3, .print ;%MACRO-I=GENINFO, Generated INFO: RMS BLOCK NOT LONGWORD ALIGNED
0000026C 026C $$TAB=
0000026C 026C .BYTE RABSC_BID
0000026C 026C .BYTE RABSC_BLN
0000026C 026C .BLKB RABSC_BLN-2
```

```
000002B0 02B0    $$ .TABEND=.
02B0
02B0
00000000 02B0    $$ .TMP=0
02B0    .SSR_VBFSET RAB,<>
02B0    .IRP X,<>
02B0    .IF DF RAB$V 'X
02B0        $$ .TMP=$$ .TMP!<1@RAB$V_'X>
02B0    .IFF
02B0        .ERROR                ; UNDEFINED BIT VALUE CODE: X;
02B0    .ENDC
02B0    .ENDR
02B0
00000270 02B0    .=$$ .TAB+RAB$SL_ROP
00000000 0270    .ADDRESS    $$ .TMP
00000284 0274    .=$$ .TAB+RAB$SL_CTX
00000000 0284    .ADDRESS    0
0000028A 0288    .=$$ .TAB+RAB$B_RAC
028A    .IF DF RAB$C_SEQ
00    028A    .BYTE    RAB$C_SEQ
028B    .IFF
028B    .BYTE
028B    .ERROR                ; UNDEFINED VALUE FOR FIELD: CNST;
028B    .ENDC
00    028B    .BYTE    0
0000    028C    .WORD    0
0000    028E    .WORD    0
00000000 0290    .ADDRESS    0
00000000 0294    .ADDRESS    0
00000000 0298    .ADDRESS    0
00000000 029C    .ADDRESS    0
02A0    .IF NB <>
02A0    .=$$ .TAB+RAB$SL_PBF
02A0    .ADDRESS
02A0    .ENDC
00    02A0    .BYTE    0
02A1    .IF NB <>
02A1    .=$$ .TAB+RAB$B_PSZ
02A1    .BYTE
02A1    .ENDC
00    02A1    .BYTE    0
00    02A2    .BYTE    0
00    02A3    .BYTE    0
00000000 02A4    .ADDRESS    0
0000021C 02A8    .ADDRESS    SYSINFAB
00000000 02AC    .ADDRESS    0
000002B0 02B0    .=$$ .TABEND
02B0
02B0    804
```



```
0280 806
0280 807 :
0280 808 : Flags
0280 809 :
0280 810
00 0280 811 INDFLAG:: .BYTE 0 ; Indicate indirect command file
0281 812
00 0281 813 WAKEFLAG:: .BYTE 0 ; Flag for legitimate $WAKE
0282 814
00000000 0282 815 CTERM_FLAG:: .LONG 0 ; TSA/CTERM flags (see $RTPADDEF)
0286 816
00000000 0286 817 RTLOG_FLAGS:: .LONG 0 ; value of RTPAD$LOG
028A 818 :
028A 819 : other misc. global storage
028A 820 :
028A 821
028A 822 RTLOG_DESC: ; RTPAD$LOG value
00000010 028A 823 .LONG 16
000002C2 028E 824 .LONG RTLOG_BUF
000002D2 02C2 825 RTLOG_BUF: .BLKB 16
02D2 826
02D2 827 RTPAD_LOGNAM:
24 44 41 50 54 52 000002DA'010E0000' 02D2 828 .ASCII /RTPAD$LOG/
47 4F 4C 02E0
02E3 829
00000309 02E3 830 RT$AB_ASTBLK:: .BLKB AST$T_BUF ; Dummy AST block
0309 831
00000000 0309 832 RETSTATUS:: .LONG 0 ; Save a system service status
00000000 030D 833 QUIT_PC:: .LONG 0 ; Save PC where error happened
0311 834
0311 835 FIRSTCMD:: ; First command descriptor
02000000 0311 836 .LONG DSC$K_CLASS_DA<DSC$B_CLASS+8>
00000000 0315 837 .LONG 0
0319 838
00 0319 839 PROTO_ECO:: .BYTE 0 ; protocol eco level
031A 840
0000 031A 841 HOST_OPSYS: .WORD 0 ; host system
031C 842
031C 843 :
031C 844 : local storage
031C 845 :
031C 846
00000000 031C 847 OLDCTRL: .LONG 0 ; CLI out of band enable flags
0320 848
00000000 0320 849 OLDSETRWM: .LONG 0 ; Original resource wait mode
0324 850
00000764 0324 851 FIRSTMSG: .BLKB AST$T_BUF+MAXMSG ; Buffer for BIND message
0764 852
0000041A 0764 853 MAXMSGsiz: .LONG MAXMSG ; Maximum message size
0768 854
```

```
00000000 0768 856 .SBTTL  PROTOCOL TABLE PSECTS
00000000 857 .PSECT  PROTOTB,BYTE,NOEXE
00000000 858
00000000 859 PROTOTBL:
00000000 860
00100000 861 .WORD  <124>
00000463' 0002 862 .LONG  CTERM_RT
00040006 863 .WORD  <122>
00000000' 0008 864 .LONG  VMSRT
00000000 865
00000000 866 .PSECT  PROTOTBL,BYTE,NOEXE
00000000 867
00000000 868 .PSECT  PROTOTBL1,BYTE,NOEXE
00000000 869
00000000 870 ENDPROTO:
00000000 871
00000000 872 .END    RTPAD
```

: <4> => CTERM protocol  
: This is the initialization entry  
: <2> => VMS remote terminal protocol  
: This is the initialization entry

RTPAD  
Symbol table

- REMOTE TERMINAL PROGRAM

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\$\$TAB	= 0000026C	R	03	FABSL_ALQ	= 00000010		
\$\$TABEND	= 00000280	R	03	FABSL_FNA	= 0000002C		
\$\$TMP	= 00000000			FABSL_FOP	= 00000004		
\$\$TMP1	= 00000001			FABSV_CHAN_MODE	= 00000002		
\$\$TMP2	= 000000CF			FABSV_FILE_MODE	= 00000004		
\$\$TMPX	= 00000000	R	04	FABSV_GET	= 00000001		
\$\$TMPX1	= 00000009			FABSV_LNM_MODE	= 00000000		
\$\$GBL	= 00000000			FABSW_GBC	= 00000048		
\$\$T1	= 00000001			FINALACS	00000200	RG	03
ASTSQ_IOSB	= 00000004			FINALPATH	000001F8	RG	03
ASTST_BUF	= 00000026			FIRSTCMD	00000311	RG	03
ASTCNT	00000044	R	03	FIRSTMSG	00000324	R	03
ASTLM	00000040	R	03	FLGSM_VAXHOST	= 00000010		
BIOCNT	0000004C	R	03	FOO_RSTS_1	= 00000392	R	01
BIOLM	00000048	R	03	GETJPI_ITMI.ST	0000000C	R	03
CHAR_BLOCK	00000060	RG	03	HOST_OPSYS	0000031A	R	03
CLISGET_VALUE	*****	X	01	INDFLAG	000002B0	RG	03
CLISPRESENT	*****	X	01	INFOMSG1	000004E9	R	01
CNTRLCHAN	00000154	RG	03	INFOMSG2	00000522	R	01
CONNDESC	000001A8	R	03	INIT	00000005	R	01
CTERMSCLOSE_LOG	*****	X	01	IOSM_CTRLVAST	= 00000080		
CTERMSOPEN_LOG	*****	X	01	IOS_READVBLK	= 00000031		
CTERM_FLAG	000002B2	RG	03	IOS_SETMODE	= 00000023		
CTERM_RT	00000463	R	01	JPI\$ASTCNT	*****	X	03
CTPSB_PRO_MSGTYPE	= 00000026			JPI\$ASTLM	*****	X	03
DCS_TERM	*****	X	01	JPI\$BIOCNT	*****	X	03
DECNETERR	00000110	RG	03	JPI\$BIOLM	*****	X	03
DEVSV_TRM	*****	X	01	JPI_IOSB	00000004	R	03
DEVBUFSIZ	00000062	R	03	LEN	00000050	R	03
DEVBUFSIZ_TEMP	0000005C	R	03	LIB\$ASN_WTH_MBX	*****	X	01
DEVCLASS	00000060	R	03	LIB\$CVT_HTB	*****	X	01
DEVCLASS_TEMP	00000054	R	03	LIB\$DISABLE_CTRL	*****	X	01
DEVDEPEND	00000064	R	03	LIB\$ENABLE_CTRL	*****	X	01
DEVDEPEND2	00000068	R	03	LIB\$PUT_OUTPUT	*****	X	01
DEVNAM	00000070	RG	03	LIB\$SIGNAL	*****	X	01
DEVNAMLEN	0000006C	RG	03	LINKCHAN	00000144	RG	03
DEVTYPE	00000061	R	03	LOCAL_PID	00000000	R	03
DEVTYPE_TEMP	00000058	R	03	LOG_DESC	00000167	R	03
DIBSK_LENGTH	= 00000074			LOG_FILE_DESC	000001A0	R	03
DSCSB_CLASS	= 00000003			MAILCHAN	00000148	RG	03
DSCSK_CLASS_D	= 00000002			MAXMSG	= 0000041A		
DTE_DESC	00000172	R	03	MAXMSG\$IZ	00000764	R	03
DVIS_DEVBUFSIZ	= 00000008			NODEDESC	0000017D	R	03
DVIS_DEVCLASS	= 00000004			NODENAME	000001B0	RG	03
DVIS_DEVDEPEND	= 0000000A			NODE_NAME_DESC	00000198	R	03
DVIS_DEVDEPEND2	= 0000001C			NOTTERM	0000011C	R	03
DVIS_DEVNAM	= 00000020			NOTVMS	00000138	R	03
DVIS_DEVTYPE	= 00000006			NOT_DTE	0000027C	R	01
DVIS_UNIT	= 0000000C			OBJ_C_PREFIX	= 00000003		
DVILIST	0000055E	R	01	OBJ_DESC	00000189	R	03
ENDPROTO	00000000	R	07	OLDCTRL	0000031C	R	03
EXITHSG	00000128	R	03	OLDSETRWM	00000320	R	03
FABSB_FNS	= 00000034			OLD_DESC	0000015C	R	03
FABSC_BID	= 00000003			PROTOTBL	00000000	R	05
FABSC_BLM	= 00000050			PROTO ECO	00000319	RG	03
FABSC_SEQ	= 00000000			PSTHRD_CRLF	00000210	R	03
FABSC_VAR	= 00000002			PSTHRU_MSG	00000208	R	03

RTPAD  
Symbol table

- REMOTE TERMINAL PROGRAM

G 3

16-SEP-1984 02:15:27 VAX/VMS Macro V04-00  
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QUIT_PC	= 0000030D	RG	03
RABSE_RAC	= 0000001E		
RABSC_BID	= 00000001		
RABSC_BLN	= 00000044		
RABSC_SEQ	= 00000000		
RABSL_CTX	= 00000018		
RABSL_ROP	= 00000004		
RDWRTCHAN	0000014C	RG	03
READCHAN	0000014C	RG	03
RECORD_QUIT	0000049C	RG	01
REMS_ATPC	= 01FE115B		
REMS_END	*****	X	03
REMS_FACILITY	= 000001FE		
REMS_NETERR	*****	X	03
REMS_NOPROT	*****	X	03
REMS_NOTERM	*****	X	03
REMOTENODE	*****	X	01
RETSTATUS	00000309	RG	03
RTSAB_ASTBLK	000002E3	RG	03
RTLOGSV_BANNER	= 00000000		
RTLOG_BUF	000002C2	R	03
RTLOG_DESC	000002BA	R	03
RTLOG_FLAGS	000002B6	RG	03
RTPAD	00000000	R	01
RTPAD_LOGNAM	000002D2	R	03
SHRSK_SHRDEF	= 00000001		
SHRS_ATPC	= 00001158		
SHRS_TEXT	= 00001130		
SS\$_EXQUOTA	*****	X	01
SS\$_NOSUCHNODE	*****	X	01
SS\$_NOTRAN	*****	X	01
SS\$_WASCLR	*****	X	01
STR\$APPEND	*****	X	01
STR\$CONCAT	*****	X	01
STR\$FREE1_DX	*****	X	01
ST\$K_INFO	*****	X	01
SYSS\$ASSIGN	*****	GX	01
SYSS\$CANCEL	*****	GX	01
SYSS\$CLOSE	*****	GX	01
SYSS\$CONNECT	*****	GX	01
SYSS\$GETDEV	*****	GX	01
SYSS\$GETDVI	*****	GX	01
SYSS\$GETJPIW	*****	GX	01
SYSS\$HIBER	*****	GX	01
SYSS\$NODE	000004C6	R	01
SYSS\$OPEN	*****	GX	01
SYSS\$PUTMSG	*****	GX	01
SYSS\$QIO	*****	GX	01
SYSS\$QIOW	*****	GX	01
SYSS\$SETAST	*****	GX	01
SYSS\$SETRWM	*****	GX	01
SYSS\$TRNLOG	*****	GX	01
SYSINFAB	0000021C	RG	03
SYSINRAB	0000026C	RG	03
TERM\$EMULATE	*****	X	01
TERMCHAR	00000084	RG	03
TERMMBXCHAN	00000158	RG	03

TERMUNIT  
TTYDESC  
UNSSNET\_CONNECT  
VMSRT  
WAKEFLAG  
WRITECHAN  
WRITEQIO

00000080	RG	03
000004D6	RG	01
*****	X	01
*****	X	01
000002B1	RG	03
00000150	RG	03
*****	X	01

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+-----+  
! Psect synopsis !  
+-----+

PSECT name	Allocation	PSECT No.	Attributes
. ABS	00000000 ( 0.)	00 ( 0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
RTPAD	000005B6 ( 1462.)	01 ( 1.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC BYTE
\$ABS\$	00000000 ( 0.)	02 ( 2.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
RTPAD	00000768 ( 1896.)	03 ( 3.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC LONG
\$RMSNAM	00000009 ( 9.)	04 ( 4.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC BYTE
PROTOTB	0000000C ( 12.)	05 ( 5.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC BYTE
PROTOTBL	00000000 ( 0.)	06 ( 6.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC BYTE
PROTOTBL1	00000000 ( 0.)	07 ( 7.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC BYTE

+-----+  
! Performance indicators !  
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	31	00:00:00.08	00:00:00.77
Command processing	129	00:00:00.47	00:00:04.39
Pass 1	694	00:00:17.42	00:01:07.76
Symbol table sort	31	00:00:02.85	00:00:13.32
Pass 2	578	00:00:04.24	00:00:19.02
Symbol table output	1	00:00:00.13	00:00:00.56
Psect synopsis output	0	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	1466	00:00:25.22	00:01:45.84

The working set limit was 2400 pages.  
173467 bytes (339 pages) of virtual memory were used to buffer the intermediate code.  
There were 150 pages of symbol table space allocated to hold 2667 non-local and 46 local symbols.  
872 source lines were read in Pass 1, producing 31 object records in Pass 2.  
63 pages of virtual memory were used to define 56 macros.

+-----+  
! Macro library statistics !  
+-----+

Macro library name	Macros defined
-\$255\$DUA28:[RTPAD.OBJ]RTPAD.MLB;1	4
-\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	12
-\$255\$DUA28:[SYSLIB]STARLET.MLB;2	36
TOTALS (all libraries)	52

3096 GETS were required to define 52 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:RTPAD/OBJ=OBJ\$:RTPAD MSRC\$:RTPAD/UPDATE=(ENH\$:RTPAD)+EXECML\$/LIB+LIB\$:RTPAD/LIB



0334

AH-BT13A-SE  
 VAX/VMS V4.0

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0335

AH-BT13A-SE  
 VAX/VMS V4.0

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